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At a Special Term of the Supreme Court of the State of New York, held in and for the City and County of New York, at the Court House in said city, the 2nd day of August, 1884.

Present—Hon. Charles H. Van Brunt, Justice.

THE
CHESEBROUGH MANUFACTURING COMPANY
(CONSOLIDATED),
Plaintiff,
against
HENRY KROENCKE and RUDOLPH LUEDEMANN,
Defendants.

"Ordered, adjudged, and decreed that the above-named defendants, as co-partners under the firm name of Henry Kroencke & Luedemann, and the defendant Rudolph Luedemann, and each of them, and each of their servants and agents, be, and they and each of them hereby are, for ever restrained and enjoined from preparing, putting up, selling, or offering for sale any article in imitation of the plaintiff's ointment, known as 'Vaseline,' or any article bearing the name of 'Vaseline,' or 'Chesebrough Vaseline,' or 'Chesebrough Manufacturing Company's Vaseline,' or any imitation of said name or names, or any imitation of the trade-mark of the plaintiff in said complaint described."

Counsel for Plaintiff,

COUDERT BROS.

The attention of druggists and others is called to the above injunction, obtained in the Supreme Court of this State, restraining the infringement of the trade-mark of this corporation.

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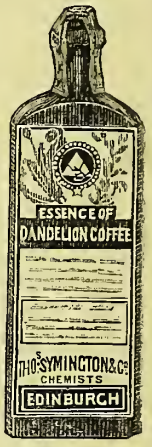
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Celluloid	,,	0	3	6
Metal	,,	0	2	8
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Solution for ditto, 1/ each extra.				
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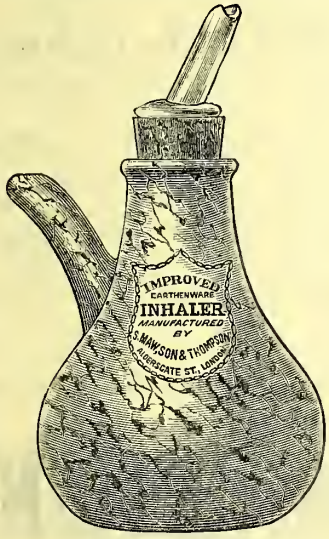


Fig. 8.
MAW'S IMPROVED.

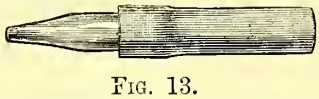


Fig. 13.
ELASTIC TUBE.



Fig. 100.
MAW'S INVALID.



Fig. 8A.
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Fig. 100:—White, 33s.; Gilt Lines, 39s. per doz.

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INJUNCTION.

In the High Court of Justice.

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By Order of Vice-Chancellor Sir James Bacon, dated the 11th June, 1884, the Defendant was perpetually restrained from infringing the Plaintiffs' Trade Marks, and from selling any Disinfecting Fluid in wrappers with any imitation of the Plaintiffs' labels, and from selling any Disinfecting Fluid not being of the Plaintiffs' manufacture as or for the goods of the Plaintiffs by using upon the bottles containing such Disinfecting Fluid a label colourably differing from the Plaintiffs' label which is upon bottles in which their Disinfecting Fluid known as Condy's Fluid is sold.

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Solicitor to the Trade Mark Protection Society.

NOTICE.

NEPENTHE.

FERRIS & Co., v. GOODMAN.

NOTICE IS HEREBY GIVEN that by an Order of the Chancery Division of the High Court of Justice, made the 18th day of July, 1884, in the above action, **IT WAS ORDERED** that the Defendant and others be perpetually restrained from selling, or offering for sale, any formula or recipe for "**Nepenthe,**" and from otherwise prejudicing the sale thereof by, or injuring the title thereto, or Trade Mark therein, of the Plaintiffs, **Messrs. Ferris & Co., of Bristol,** the **registered proprietors thereof.**

And it was further ordered that the Defendant do pay the costs of the said Action.

Dated this 12th day of August, 1884.

(Signed) CHILTON & GREEN-ARMYTAGE, Bristol,
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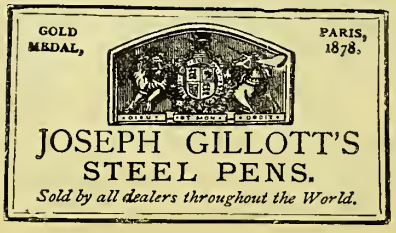
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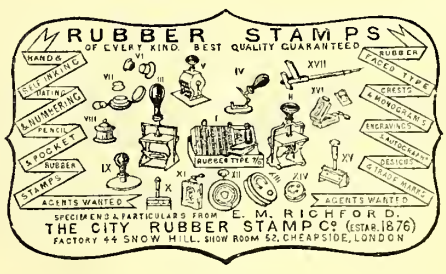
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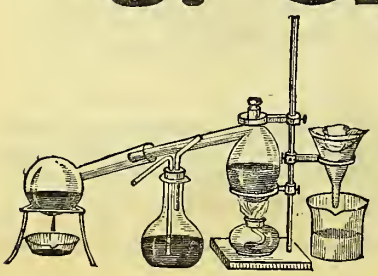
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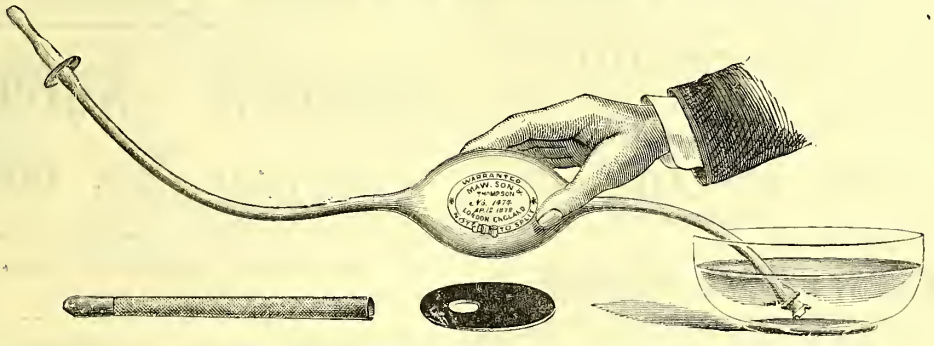
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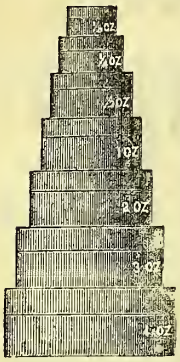
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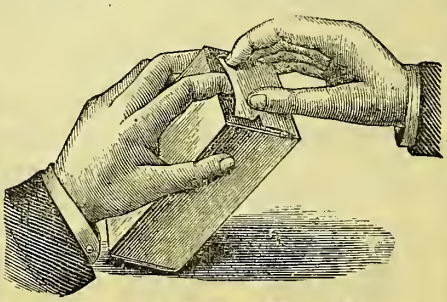
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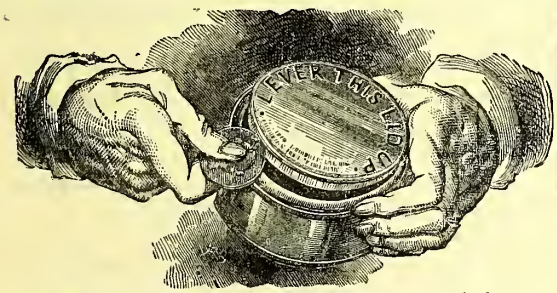
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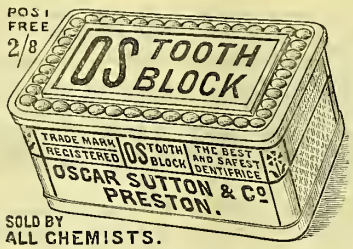
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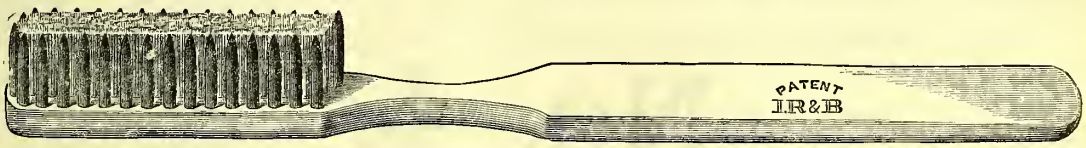
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We have received from Messrs. Maw & Co., of Aldersgate Street, specimens of a new pattern Tooth-brush, with the above designation, which they are about to bring under the notice of the profession. The initials refer to the "India Rubber and Bristles," of which the brushes are composed. They consist of a narrow bristle brush of the ordinary type, surrounded by a single row of stems of soft red rubber of nearly the same length. They are both efficient and pleasant to use, and we should anticipate that the superior durability and elasticity of the rubber will afford so much support to the bristles as to keep them in shape and working order for a much longer time than an equally soft ordinary bristle brush would wear. The chief object of the rubber addition is, however, to prevent abrasion of the gums, and it appears to answer this purpose very satisfactorily. To persons with tender, or partially edentulous mouths, brushing the teeth is an unpleasant and even painful operation; Messrs. Maw's brushes will certainly reduce the discomfort in such cases to a minimum.

MANUFACTURED BY

S. MAW, SON & THOMPSON, 7 to 12 Aldersgate Street, London.

Notice to the Trade

GENUINE EAU DE COLOGNE

MANUFACTURED BY

JOHANN MARIA FARINA,

JULICH'S PLATZ No. 4,

A DESCENDANT FROM THE

Original Manufacturer of this Valuable Perfume,

IS KNOWN THROUGHOUT THE WORLD AS

No. 4.

AND SOLD BY ALL THE LEADING WHOLESALE HOUSES.

In 2 oz. Bottles.	In reputed ½-Pint, Wickered.
In 4 oz. Bottles.	In reputed Pint, Wickered.
In 6 oz. Bottles.	In reputed Quart, Wickered.
In 8 oz. Bottles.	In 4 oz. Bottles, Wickered.

JOHANN MARIA FARINA,

JULICH'S PLATZ No. 4,

COLOGNE-ON-THE-RHINE.

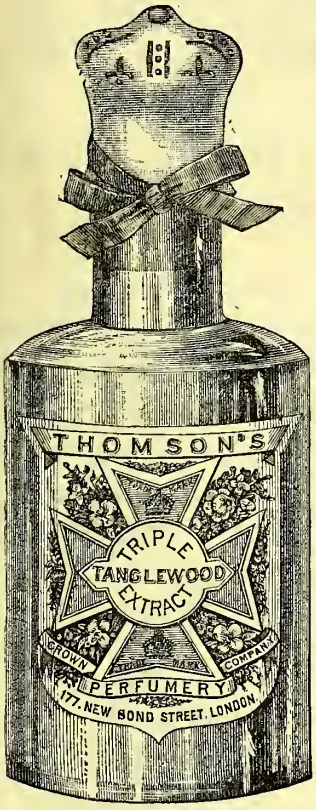
By Special Appointment to the Prince of Wales and to several Imperial and Royal Courts.

Possessor of PRIZE MEDALS and DIPLOMAS of the Exhibitions at LONDON, 1851; NEW YORK, 1853; LONDON, 1862; OPORTO, 1865; CORDOVA (Argentine Republic), 1871; and at VIENNA, 1873; SANTIAGO (Chili), 1875; PHILADELPHIA, 1876; CAPE TOWN (South Africa), 1877 (Gold Medal); SYDNEY, 1879; and MELBOURNE, 1880.

Sole WHOLESALE Agents for the United Kingdom and Colonies,

FICKUS, COURTENAY & CO.

ST. DUNSTAN'S BUILDINGS, GREAT TOWER STREET, LONDON.



THE CROWN PERFUMERY CO.,

TRADE MARK.

177 New Bond St., London,

Beg to draw the attention of Chemists, Druggists, and Perfumery Dealers to their Fine Perfumes and Fancy Soaps, for the excellent quality of which

SEVEN PRIZE MEDALS HAVE BEEN AWARDED.

Concentrated Essences of Great Fragrance and Strength:—

Tanglewood,	White Rose,	Frangipani,
Crown Bouquet,	Jockey Club,	Opoponax,
Mathiola,	Ess Bouquet,	Ylang Ylang,
Stephanotis,	Wood Violet,	Isle of Wight Bouquet.

16/, 20/, 28/, 48/, and 84/ per doz.

SUPPLIED IN BOND FOR EXPORT AT GREATLY REDUCED PRICES.

THE CROWN SOAPS are prepared with great care from the purest materials, delicately perfumed, and very lasting.

BROWN WINDSOR, HONEY, ALMOND AND GLYCERINE, ROSE, &c.—In Card Boxes of 3 tablets each, 8/ and 12/ per dozen boxes; also in Wood Boxes of 7 or 14 lbs., 64/, 74/, 84/, and 120/ per cwt.

PURE COAL TAR SOAP.—Each tablet enveloped in tin-foil. 27*s.* per gross. The well-known disinfecting properties of this Soap have caused it to be in universal demand. Its regular use, especially in warm climates, quickly allays all irritation of the Skin, whilst its agreeable odour induces a feeling of freshness and comfort not attainable by any other means.

OPALINE SOAP, FOR THE TOILET AND NURSERY.—Absolutely pure, delicately scented, and very emollient. 4/ per dozen tablets.

OPALINE TOOTH PASTE, the New Fragrant Dentifrice, 8/ per doz.

OPALINE FACE POWDER, 3/6 and 7/ per dozen packets; 15/ per dozen boxes.

Indents may be forwarded through any English Commission Merchant or Drug House.

ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE MANUFACTORY,

NEW FAIRFIELD WORKS, OLD BAILEY. E.C.

COPYRIGHT—ORIGINAL AND ONLY GENUINE.

WHITAKER & GROSSMITH'S PURE WHITE GLYCERINE SOAP.

Richly Perfumed, and guaranteed to contain the necessary quantity of GLYCERINE for effectually imparting to the SKIN the softening and healing properties for which it is so justly famed. **1s. 6d. Boxes of Three Tablets, 12s. per Dozen Boxes.**

SELECT TOILET PREPARATIONS, extensively increasing in demand, which attests their excellent quality.

TOILET SOAPS.	Per doz.		Per doz.
Cent-Fleur (*copyright*)	2/6	*Boxes of 3 tablets*	20/
Jockey Club „	1/6	„	12/
Sandringham „	1/6	„	12/6
Eucalyptus Oil „	1/6	„	12/
Wild Thyme (Thymol)	1/	„	8
Semi-Cut Bars „	1/	*Bars of 6 kinds*	8/6

BOUQUETS.		Per doz.
Cent-Fleur (*copyright*)	*In Glass Stoppered or Sprinkling cap Bottles.*	12/
Jockey Club Bouquet...		
Ess Bouquet		20/
Frangipanni		
Pearl of Perfumes ...		28/
Lime Tree Blossoms ...		

POMADES, &c.	Per doz.
Cent-Fleur (*copyright*) ...	8/, 12/ & 20/
Petroleum Pomade ...	12/ & 18/
Brilliantine	8/, 12/ & 20/
Anglo Eau de Cologne ...	8/ & 12/
Eucalyptus Vinegar ...	12/ & 20/
White Cherry Tooth Paste	8/ & 12/

Trade Price Lists sent and Orders executed through Wholesale Houses, or direct from the Manufacturers, 1

WHITAKER & GROSSMITH, 22 SILK STREET (REMOVED FROM 120 FORE STREET), **LONDON, E.C.**

RIMMEL'S SANITARY PERFUMERY.



RIMMEL'S CELEBRATED TOILET VINEGAR maintains its forty years' reputation as the most tonic and refreshing Lotion for the Toilet or Bath, 1*s.*, 2*s.* 6*d.*, and 5*s.*

RIMMEL'S TRANSPARENT COAL-TAR SOAP, combining the purifying effects of tar with the emollient properties of transparent soap. 1*s* 6*d* per box of 3.

RIMMEL'S AROMATIC OZONIZER, a fragrant powder of Pine and Eucalyptus, produces, by simple evaporation, a quantity of *Ozone*, the great air purifier. Its clean and portable nature renders it far preferable to liquid disinfectants for home or public use. In 4-oz. Tins, 1*s*; 1-lb. Tins, 3*s.* 6*d.*; Spreading Plate, 6*d.*; by post 3*d.* extra.

RIMMEL'S OZONIZED EAU DE COLOGNE, LAVENDER, EUCALYPTUS, and FLORIDA WATERS, sprinkled on a pad hung up in the air, destroy bad smells and noxious effluvia in sick rooms, closets, &c. They are recommended also to be used on the handkerchief when attending crowded places, visiting the sick, or travelling by land or sea. Price, 2*s.* 6*d.* and 5*s.* per Bottle; Pad, 1*s.*

RIMMEL'S AROMATIC OZONIZED POCKET CASSOLETTE, to preserve from infection, 6*d.*, by post for 7 stamps.

N.B.—500 prospectuses, with name and address, sent to every purchaser of £2 worth of above.

SOLD BY ALL CHEMISTS AND DRUGGISTS. THE USUAL ALLOWANCE TO THE TRADE.

EUGENE RIMMEL, PERFUMER TO H.R.H. THE PRINCESS OF WALES, **96 STRAND, LONDON.**

EAU DE COLOGNE

OF THE MOST ANCIENT DISTILLER,

JOHANN MARIA FARINA,

Opposite the Julichs Place, COLOGNE.

ESTABLISHED A.D. 1709.

PRIZE MEDALS:—LONDON, 1851 AND 1862; OPORTO, 1865; PARIS, 1867; VIENNA, 1873.

By appointment, Sole Purveyor to Her Most Gracious Majesty Victoria, Queen of Great Britain & Ireland; Their Royal Highnesses the Prince and Princess of Wales; William, King of Prussia;

Albert II., King of Saxony; Alexander II., Emperor of Russia; Francis Joseph, Emperor of Austria; Lewis, King of Portugal; H.R.H. Frederick William, Crown Prince of Prussia.

In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I beg to submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark, for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



All similar Labels being more or less imitations of the same, I shall proceed as before against all persons selling or exposing for sale any such imitations.

I only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has not been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 12*s.* 6*d.* per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra. 7½ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

I may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

The Goods can also be shipped in transit through London at a very small additional expense, full particulars of which may be obtained of my Sole Agents for Great Britain and Ireland:—

MESSRS. J. & R. McCRACKEN,

No. 38 Queen Street, Cannon Street, London, E.C.

The following are the sizes of my bottles:—

No. 1. Long Green Flasks	12 bottles	} to one dozen.
„ 2. Short White Bottles	12 „	
„ 3. Double ditto	6 „	
„ 4. Wickered Bottles (small)	8 „	
„ 5. ditto (medium)	4 „	
„ 6. ditto (large)	2 „	

JOHANN MARIA FARINA,

OPPOSITE THE JÜLICHS PLACE.

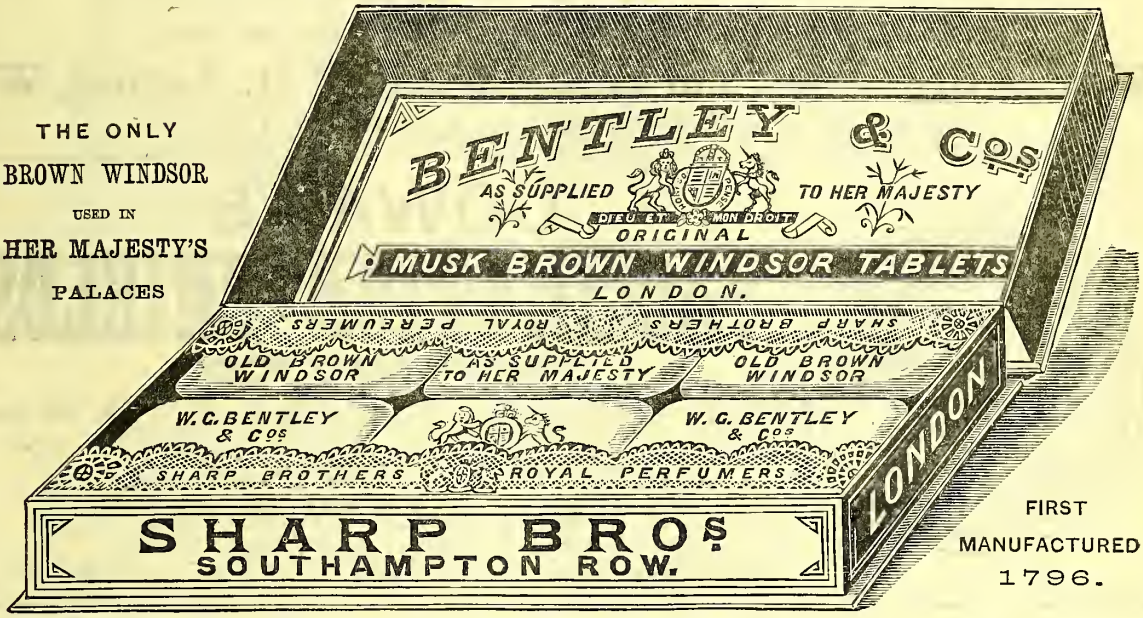
Cologne: *January*, 1884

SPECIAL NOTICE

TO SHIPPERS, WHOLESALE DEALERS, AND THE TRADE.

SPECIALITIES WORTH ATTENTION.

THE ONLY
BROWN WINDSOR
USED IN
HER MAJESTY'S
PALACES



FIRST
MANUFACTURED
1796.

SOLD IN BOXES CONTAINING SIX SMALL TABLETS OR THREE LARGE, 1/6 each; 12s. per Dozen Boxes.

DUCHESS MARIE BOUQUET

ADELINA PATTI'S FAVORITE PERFUME.

2s. 6d., 3s. 6d., 5s. and 10s. 6d. per Bottle; 20s., 28s., 40s., 80s. per Dozen.



London,
46 Charlton Terrace, Pentonville Road, S.W.
To Messrs Sharp Brothers July 4 1882.

I have much pleasure in certifying that "Bentley's formed Rm Allen's Old Brown Windsor Soap" supplied solely by me to Buckingham Palace was the one selected for the use of Her Majesty and the Royal Family. Its fragrant and delicate perfume combined with its valuable emollient qualities have ensured the approbation and constant use of Her Majesty and her Court.

John Baddard
Member of the Pharmaceutical Society
Chemist to the Queen

Dragstett Lodge
Kings Road
Fulham S.W. June 15th 1882

Gentlemen,

I beg to thank you for the sample bottle of Duchesse Marie. I shall feel much obliged if you will send me a case of a dozen bottles, as I like it very much.

Yours faithfully,
Adelina Patti

Messrs Sharp Bros.
12 Southampton Row
High Holborn, London

PRICE LIST ON APPLICATION.

SHARP BROS., 12 SOUTHAMPTON ROW, LONDON, W.C.

SPECIAL NOTICE.

The price for stamping Names and Addresses on the tops of

HUNT'S BOTTLE CAPS

IS NOW REDUCED TO **4d.** PER GROSS.

OF ALL WHOLESALE HOUSES, OR—

W. F. HUNT & Co., 3 to 5 Little Windmill St., London, W.

MANUFACTORY—MARSEILLES.



COWAN'S VACCINATION SHIELDS

IMPROVED.

3/3, 7/, & 12/ per doz. Adult size, 5/3, 9/, & 15/ per doz.

Be sure and ask for COWAN'S, for any other will hurt your sale for this article.
To be had of all Wholesale Chemists and Sundriesmen.

W. COWAN,
Inventor and Maker of the Vaccination Shield,
239 GEORGE STREET, GLASGOW.

THE **SANITARY** (REGISTERED) **ROSE POWDER,**

"The Perfection of Nursery Powders."

A SOLUBLE Antiseptic Dusting Powder for TOILET and CHILDREN'S USE.

RECOMMENDED BY EMINENT MEDICAL AUTHORITIES.

Useful in cases of irritability or chafing of the skin, for unpleasant perspiration, &c. Suitable for application to the tenderest skins of Infants and Invalids, and superior to the ordinary Toilet Powders for Ladies' use.

SPECIALLY ADAPTED FOR HOT CLIMATES.

EXTRACTS FROM THE MEDICAL PRESS, &c.

"It promises well for Nursery Use."—*The Lancet.*

"An improvement on the old-fashioned Violet Powders."—*British Medical Journal.*

"We have found it to possess the qualities claimed for it."—*Medical Times and Gazette.*

"Deserves very high commendation. It would be well if it were generally used in Nurseries and for Toilet purposes."—*Medical Record.*

"As a high-class toilet powder this preparation is likely to enjoy a good deal of favour."—*The Chemist and Druggist.*

"A very superior article, *fragrant, soothing, cleanly.*"—*The Queen.*

In Boxes, 1/, 1/9, and 3/, and in large Bottles, 5/.

SPECIAL AGENTS:—London: Messrs. Corbyn, Stacey & Co.; Godfrey & Cooke; Roberts & Co.; Savory & Moore: and Mr. F. Andrews, Leinster Terrace, W. Dublin: Hamilton, Long & Co., and Butler's Medical Hall. Edinburgh: Duncan, Flockhart & Co. Glasgow: Frazer & Green. Rio de Janeiro: Crashley & Co. Rio Grande and Porto Alegre: Hallawell & Co. Madras Presidency: Oakes & Co. Sydney and Brisbane: Elliott Bros. Natal: T. H. Drury & Co., Pietermaritzburg.

WHOLESALE LONDON AGENTS:—Messrs. Edwards & Sons, Barclay & Sons, Newbery & Sons, Sanger & Sons, and all leading Wholesale Houses.

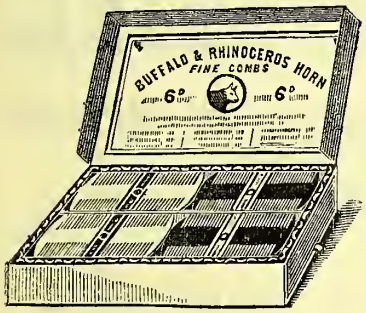
Proprietors: JAMES WOOLLEY, SONS & CO.,
Manufacturing Pharmaceutical Chemists, MANCHESTER.

SHOW TABLET AND HAND BILLS ON APPLICATION.

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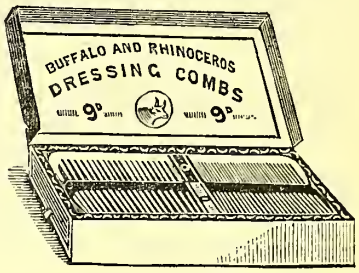
S. R. STEWART & CO.,

ABERDEEN COMB WORKS, ABERDEEN.



TRADE MARK.





AWARDED THE ONLY FIRST PRIZE MEDALS at London, 1862; Vienna, 1873; Paris, 1878; Sydney, 1879; Melbourne, 1880; Adelaide, 1881; Amsterdam, 1883; Calcutta, 1884, for

COMBS.

Real and Imitation Tortoiseshell, Buffalo, Rhinoceros, and pure White Horn.

DRUGGISTS' SCOOPS & SPOONS, FRUIT KNIVES, PAPER-CUTTERS,

AND ALL OTHER HORN GOODS. THE TRADE ONLY SUPPLIED.

BRANCHES—126 Queen Victoria Street, LONDON, E.C., & 14 Carr's Lane, BIRMINGHAM.

BEAUTY—WOMAN'S GREATEST CHARM.

NORINA'S EMOLLIENT,

Prepared from the Recipe of the late Dr. ANDERSON, produces a lovely complexion. It is elegantly perfumed, without sediment, and perfectly harmless. One of the best preparations before the public. Largely advertised and in great request. 4/6 each.

Agents—Messrs. NEWBERY, King Edward Street, Newgate Street, London.

IMPORTANT TO SHIPPERS.



ASHWORTH'S PATENT METALLIC COMB-BRUSH AND METALLIC-BRISTLE COMB-BRUSH.

IMPORTANT TO SHIPPERS.

These brushes are delightfully cool to the head, producing a most agreeable sensation, and will penetrate the most luxuriant hair without injury. These handles are also in solid pieces, and hence will not fall apart as in the case of brush handles covered with veneer. The latter brush shows a most remarkable development in metallic brush making. It is made of fine tempered steel wires, *about the thickness of ordinary bristles.* This penetrates, SMOOTHS, and FIXES THE HAIR. It is, to express the words of a user, "Simply perfection as a hair brush, and must, when known, take the place of the bristle brush for toilet uses." Send for a SAMPLE BY POST AND TRY IT.

IMPORTANT TO SHIPPERS.

Prices of Metallic Comb-Brush, post free.

Ladies' and Gentlemen's Black Japan	1/9, 2/3, 2/9
Gentlemen's Black Japan, Military Style	2/0, 2/6, 3/0
Dog, Cattle, and Horse Brushes	2/0, 2/6, 3/0

Prices of Metallic-Bristle Comb-Brush, post free.

TEMPERED FINE STEEL WIRE.

Ladies' and Gentlemen's Black Japan	2/4, 3/0, 4/0
" " Ivory-coated	2/8, 3/6, 4/4
Gentlemen's Black Japan, Military Style	2/8, 3/6, 4/4

The "Humanitas" Curry-Comb Brush, for Horses, Dogs, Cattle, &c.—Prices:

Made of iron wire, covered with white metal—No. 1, 1/0 each; No. 2, 1/6 each.
" fine steel wire, covered with white metal—No. 0, 1, 1/6; No. 0, 2, 2/0 each
All Goods are forwarded safely packed in Neat Box.

ASHWORTH BROS., Collyhurst, Manchester, England.

CHUBB'S Best SEIDLITZ POWDERS

—Full Weight—Loose, at 7s. per gross; in lift-off boxes, 7s. 6d., and in hinged boxes, 8s. 6d., per dozen.

CHUBB'S Extra Scented VIOLET POWDER

(WARRANTED PURE STARCH POWDER),
In 1d. Boxes, 6s. gross, and 2d. Boxes, 11s. gross, and in ¼-lb. and ½-lb. Packets, 10d. per lb.

CHUBB'S Prepared FULLER'S EARTH

In 1d. Boxes, 5s. gross, and 2d. Boxes, 9s. gross, and in 3d. and 6d. ROUND Boxes, 1s. 6d. and 2s. 6d. dozen.

SUBJECT TO 15 PER CENT. DISCOUNT FOR CASH.

May be obtained through all the Wholesale Houses, or direct from

CHUBB & CO., 29 OLD ST., LONDON, E.C.

SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

OKELL'S ORIGINAL MONA BOUQUET

Retail, 1/, 1/9, and 3/6; Wholesale, 9/, 15/, and 30/ per doz.

This much-admired Perfume (prepared by the Widow of the late Joseph Okell), may be obtained from the leading Patent Medicine Houses, Wholesale Druggists, and Druggists' Sundry Dealers.

Applications for WHOLESALE Agencies to be made to the SOLE CONSIGNEE, THOMAS WEST, Chemist, 61 Chester Road, Stretford, Lancashire.

MARION & CO.,

22 & 23 SOHO SQUARE, LONDON, W.,

THE BEST WHOLESALE HOUSE FOR

PHOTOGRAPHIC MATERIAL.

MANUFACTURERS OF

FRENCH MOUNTS OF ALL KINDS.
(Factory at Courbevoie, Paris.)

BRITANNIA DRY PLATES.
From their Cheapness and Excellence are in universal use.

MARION'S ALBUMENISED PAPERS.

PHOTOGRAPHIC CHEMICALS,
As Cheap as any House.

COMPLETE OUTFIT FOR AMATEURS
From 50/- to £50.

MARION'S LENSES,
For Portraits, Views, and Instantaneous Photography.

CAMERAS AND PHOTOGRAPHIC CABINET WORK.

BACKGROUND AND ACCESSORIES
For the Studio.

WORKS AT SOUTHGATE FOR ENLARGING AND PRINTING.

JUST PUBLISHED.

MARION'S PRACTICAL GUIDE TO PHOTOGRAPHY, 2/6.
THE MOST PRACTICAL AND THOROUGH BOOK ON THE SUBJECT.

SAMPLES AND LIST OF PRICES FREE ON APPLICATION.

MARION & CO., 22 & 23 SOHO SQUARE, LONDON, W.

MARKING INK (Sine Silver),
Intensely Black, Permanent, and requires no Heating.

IN BULK FOR CHEMISTS' OWN PUTTING UP.

In 4-oz., 8-oz., and 12-oz. Bottles, at 4/, 7/6, and 10/6 respectively.
Sent free to any part of the United Kingdom on receipt of remittance made payable to

J. BUNKER, Chemist, Hackney, London, E.

ORPE'S COMPOUND PERFUME.

½-lb. Bottles, 6/6 each; 1-lb. ditto, 12/6 each.

This compound will be found superior to Bergamot or Lemon for scenting Pomades, Cosmetics, or Oils. (½ oz. to 2 lb. Ol. Olivæ.)

A. F. FOSSE (LATE T. M. ORPE), 329 Old Kent Rd., London, S.E.
Importer of French Pomades and Essences. Obtained through Messrs. Maw, Son & Thompson, and all Wholesale Houses.

GREENSILL'S FAR-FAMED MONA BOUQUET
THE ORIGINAL AND ONLY GENUINE.
The great popularity of this exquisite Perfume is a proof of its excellence and superior qualities.

T. S. GREENSILL, Chemist, Douglas, Isle of Man,
Inventor, Proprietor, and Maker.

AGENTS—LONDON: Sanger; Maw; Edwards; Newbery; Mather; Barclay; Whittaker & Grossmith; Hovenden; Parton & Osborne; Butler & Crispe; Tidman & Son; Barron & Squire; Wright, Layman & Umney; Jno. Thompson; Burgoyne, Burbidges & Co.; Grimwade, Ridley & Co.; Baiss Brothers; Lynch & Co. LIVERPOOL: Evans, Sons & Co.; Clay, Dod & Case; B. Sumner & Co.; Raimes & Co.; Ayrton & Saunders. MANCHESTER: J. Woolley; Lynch & Bateman; Jewsbury & Brown; Mather. EDINBURGH: Duncan & Flockhart. DUBLIN: M'Master; Hodgson. YORK: Sntcliffe & Headley; Clark, Bleasdale. THIRSK: Wm. Foggitt. BRISTOL: Ferris & Co. LEEDS: Goodall & Backhouse. BIRMINGHAM: Churchill & Son; P. Harris & Co.; Parton & Osborne; Southall Bros. & Barclay.

Agents for CALCUTTA: Smith, Stanistreet & Co. MONTREAL: Sngden, Evans & Co. NEW ZEALAND: Kempthorne, Prosser & Co. MELBOURNE: Felton, Grimwade & Co. *Introduced in* 1852.

Registered Trade Mark—"Tower of Refuge Douglas Bay."

PHŒNIX ESTABLISHED A.D. 1815 **MARKING INK**
GENUINE INDELIBLE

MANUFACTURER OF INDELIBLE MARKING INK
DIEU ET MON DROIT
TO HER MAJESTY'S ARMY CLOTHING DEPARTMENT.

THE LEADING & STANDARD ARTICLE
PREPARED ONLY BY THE WIDOW OF THE LATE
JOHN MURPHY
CHEMIST AT THE ORIGINAL ESTABLISHMENT
11, NILE STREET, EAST ROAD, HOXTON N.

THE ORIGINAL

TRADE MARK.
Estab. 1815.

NO OTHER ADDRESS — BEWARE OF WORTHLESS IMITATIONS.

SAVARS.

WINTER REQUISITES.

CHEST PROTECTORS (Good Samaritan), Vest Shape, and every other kind, Single and Double, manufactured from selected material. See Sundry List, p. 19; Export List, p. 9.

SAVARS' COLD CREAM and GLYCERINE JELLY, handsomely put up in Opal Glass Covered Pots. See Sundry List, p. 20; Export List, p. 9.

INHALERS of every description. See Sundry List, p. 32; Export List, p. 15.

PLASTERS of every description and shape, Plain and Porous. See Sundry List, p. 50; Export List, p. 26.

POISON STOPPER, for effectually checking poisoning by misadventure. No Dispensing Counter complete without it.

RESPIRATORS (Ladies' and Gents') of every description. See Sundry List, p. 59; Export List, p. 29.

SOCKS (Good Samaritan), made of Patent Leatherine, lined with Felt. Being porous are ventilating as well as keeping the feet warm and dry. Made in all sizes.

SALICYLIC ACID PLASTER, for Epidermis thickened by disease. To be applied and not removed for weeks. "Salicylic Acid has a peculiar solvent action on epidermic tissue."—*Brit. Med. Journal*, 1884, p. 602.

Savars Articles are of Guaranteed Quality, and are supplied to the Registered Chemists only.

☞ A LIST SENT ON RECEIPT OF BUSINESS CARD AND REFERENCE.

EVANS, SONS & CO.,
56 HANOVER STREET, LIVERPOOL.

EVANS, LESCHER & WEBB,
60 BARTHOLOMEW CLOSE, LONDON.

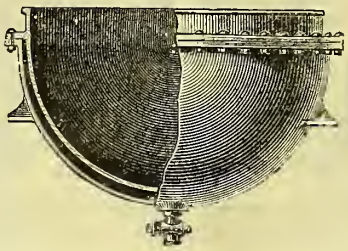
MANCHESTER OFFICE AND SHOWROOM—Exchange Buildings, Cromford Court, Market Street.
BIRMINGHAM OFFICE AND SHOWROOM—Barwick Street, off Livery Street.

EVANS, SONS & MASON (LIM.), MONTREAL, CANADA.

SAVARS.

ESTABLISHED 1829.

EVAPORATING PANS,



PANS OF ALL KINDS,

IN COPPER, IRON, TIN, AND ENAMELLED IRON.

VACUUM PANS.

For Boiling, Evaporating, and Concentrating Quickly at Low Temperatures from 80° F., thus avoiding the high heat which an open pan necessitates.

IMPROVED MILL GRINDING & LEVIGATING MACHINERY,

MACHINERY OF ALL DESCRIPTIONS.

BRINJES & GOODWIN,

WHITECHAPEL ENGINE WORKS, 25 FIELDGATE STREET, LONDON, E.

Electric Polish! Electric Polish!!

For cleaning Silver, Copper, Brass, Steel, & all bright metals, diminished labour, less trouble and expense, use

LEWIS'S ELECTRIC POLISH,

which will make old and tarnished articles bright as new. It is a liquid preparation, and entirely different to anything yet introduced. It contains no acid, mercury, or injurious chemicals, easily applied, and at once produces a bright, mirror-like surface, and lasting. Tradesmen and others who require a polish for their Scales, Weights, Brass Stalls, &c., it is invaluable. For domestic use, Silver, Electro Plate, Steel, Door Handles, &c., it will prove a great boon. When once tried, it will never give place to any other. An outlay of 6*d.* for a bottle will never be regretted. Price 6*d.* and 1*s.* per bottle, of all Chemists.

SOLE MANUFACTURER,

D. J. LEWIS, Chemist, &c., High St., Acton, W.

Wholesale London Agents—SANGER & SONS; G. B. KENT & SONS; S. MAW, SON & THOMPSON; and SOUTHALLS, Birmingham.
The Proprietor can with every confidence recommend this to the Trade.

3 Prince of Wales Crescent, Kentish Town,
London, N.W., *January* 16, 1884.

SIR,—I have much pleasure in informing you that the bottle of "ELECTRIC POLISH" I bought of you does even more than you promised it should do. I gave it a fair trial with gold, silver, and brass, and found it to give a far more lustrous and lasting polish than any paste or powder I ever tried, and when once a bright surface is obtained it is some considerable time before it becomes dull again. It needs only to be known to be appreciated. You are at liberty to make what use you like of this letter, and I trust the sale of your Polish will continue to increase, as such a very useful and economical preparation deserves to.

I am, Sir, yours truly,
To Mr. LEWIS, Chemist, &c. M. HERSANT.

Apsley Terrace, Acton, W., *April* 10, 1884.

Mrs. CONRAD HOWELL has much pleasure in testifying to the excellence of the ELECTRIC POLISH prepared by Mr. LEWIS. It seems to suit all metals equally; it has completely restored some tarnished silver which Mrs. H. was about to send to a Silversmith to be cleaned. No one who tries it can doubt the result.

GUEST'S HOUSEHOLD REQUISITES.

GUEST'S FURNITURE POLISH REVIVER.—An entirely new preparation, brilliant polish, little labour, and no finger-marks. In patent air-tight tins.

GUEST'S FURNITURE CREAM gives a brilliant polish with half the usual labour.

GUEST'S SILVERSMITHS' PLATE POWDER.—A new preparation, warranted to prevent tarnishing three times longer than any other.

GUEST'S CUTLERY POLISH gives a brilliant mirror-like lustre. Sold in perforated canisters.

GUEST'S BRASS POLISH.—Splendid polish, rich colour, with little labour.

GUEST'S BRUNSWICK BLACK.

W. G. & S. have every confidence in recommending above to the public, and earnestly solicit a trial. Samples and price lists on application.

WM. GUEST & SON,
NEPTUNE WORKS, PORTMAHON, SHEFFIELD.

ESTABLISHED 50 YEARS.

Exhibitions—1851, 1862; Paris, 1867, 1878.

LEATHART'S Improved EXHIBITION DYES

To Retail at 1/-, 2/6, 3/6 and 5/6. See Price List

LEATHART'S COLORIFIC.

A Stain in one preparation; perfect, light, and ordinary browns.
To Retail at 3/6; 24/- per dozen.

EXHIBITION DYE IN BULK.

2/6, 5/-, 10/-, £1. Four Colours.

ONE PREPARATION IN BULK.

MALACCA JUICE.

Winchester (4 pints), 14/. Sample Bottle, carriage free, 1/6.
AN ORIGINAL PREPARATION. QUICK IN ACTION.

C. G. LEATHART is at home for consultation on Mondays only, from 10 till 4.

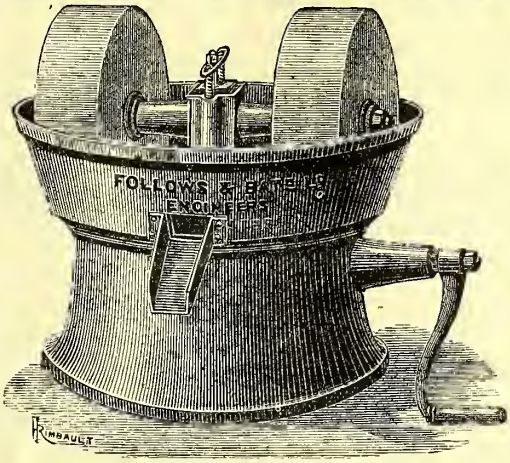
179 LADBROKE GROVE ROAD, NOTTING HILL, W.

N.B.—Price List will be forwarded.

IMPROVED HAND EDGE RUNNER MILL.

PARIS, 1878.





VIENNA, 1873.



For Mixing and Grinding Crystals (Tartaric Acid, &c), Dry Colours, Drugs, Shellac, Harness Composition, Pastes of different kinds, Composition for Matches, &c., &c.

PRICES.

For Hand Power, with Iron Rollers, £17 10s.

For Steam Power, with Fast and Loose Pulleys and improved gear, £22 10s.; and £27 10s.

If with Granite Rollers and Granite Bed, Wood Hopper, Lignum Busbes and Scrapers, for special purpose, £32 10s.

THIS MILL is of an entirely new design. It is most substantially built, and is intended to meet a long-felt want, that is, a thoroughly efficient Machine for grinding and mixing dry colours, crystals, powders, drugs, and a variety of other materials by manual power. The gearing is of the simplest kind, and is all encased. The pan is stationary, and the rollers, which are of iron or granite, as ordered, and of considerable weight, are carried round the pan by a horizontal cross head, the ends of which form the axles, round which the rollers rotate. To the centre of the cross head, so as to rotate with it, are attached adjustable scrapers, placed in such a position as to travel in front of the rotating rollers, by which means the material is constantly thrown into the centre of their track. The crushing power of the rollers, in addition to their own weight, may be increased or diminished at pleasure by simply tightening a nut, which actuates a pair of powerful spiral springs attached to the central pedestal.

Larger sizes, of somewhat similar design but of greater capacity, are also made for steam power—the rollers of which are of granite.

PAINT MILLS, DRUG MILLS, for grinding Ginger, &c., PAN MILLS, for Ointments, Powders, &c., TINCTURE PRESSES, &c.

PRICES ON APPLICATION. PRICES ON APPLICATION.

FOLLOWS & BATE, Limited, Engineers,

Dutton Street Works, MANCHESTER.

THE "SIMPLEX" PILL MASSER.

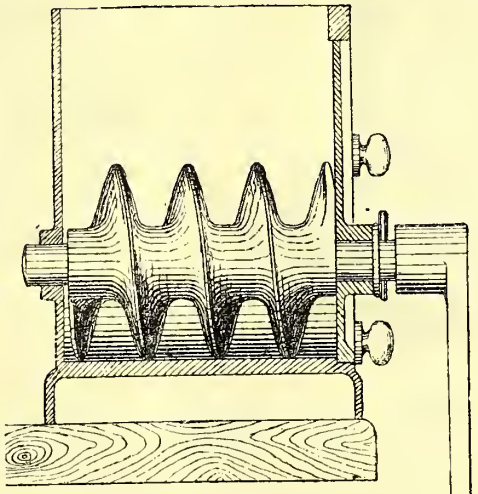
Eastern Dispensary,
Leman Street, London, E.,
May 29, 1884.

Gentlemen,—I have long wished to meet with a really efficient MECHANICAL substitute for the Pestle and Mortar. Your "Masser," in my hands has been so satisfactory, that I felt justified in introducing it to the notice of the Dispensary Department of the London Hospital.

There it has been highly appreciated—its Time and Labour Saving qualities at once proving its value.

I remain, yours faithfully,
C. W. LEAPINGWELL,
M.R.C.S., Eng.,
Resd. Med. Officer, Eastern Dispensary.

To the U. M. & C. M. Co., Ld.,
Queen Victoria Street.



HEALTH EXHIBITION,

Stand 1162.

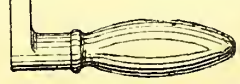
ALSO

POWDER MIXERS,
CRUSHERS,
MEAT CUTTERS,
SAUSAGE MACHINES,
&c., &c.

Made in sizes to mix from ½ lb. to 20 lbs. at a time.

The UNIVERSAL MIXING & CHOPPING MACHINE CO., Ld

11 QUEEN VICTORIA STREET (Room 505), LONDON, E.C.



IMPORTANT REDUCTION in the WHOLESALE PRICE of LAMPS,
ON OCTOBER 1, 1884.

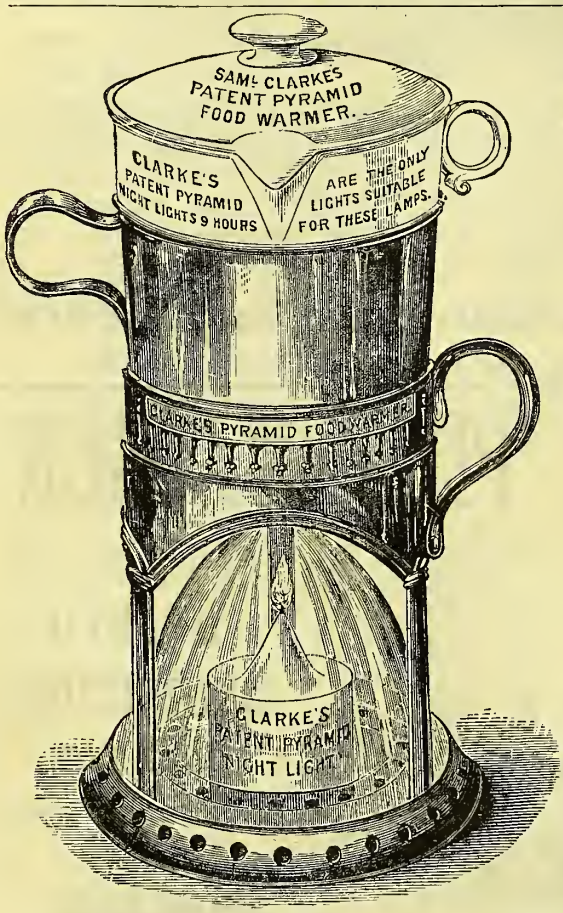
SAMUEL CLARKE'S
PATENT
PYRAMID NURSERY LAMP FOOD WARMERS

MOSCOW EXHIBITION, 1872,

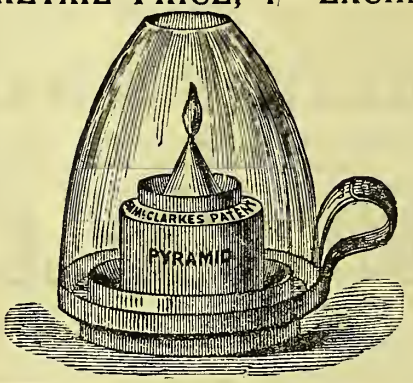
1st Award, First Grand Silver Medal to Samuel Clarke, London, for his Patent Pyramid Night Lamp Food Warmer.

2nd Award, First Grand Silver Medal to Samuel Clarke, London, for his Patent Pyramid Night Lights.

PRIZE MEDAL AWARDED, LONDON, 1873.
PRIZE MEDAL AWARDED, PARIS EXPOSITION, 1867.



PATENT
PYRAMID NIGHT LAMPS.
THE BURGLAR'S HORROR ! !
RETAIL PRICE, 1/- EACH.



NOTICE TO THE TRADE.

Dealers having any PYRAMID Food Warmers, or PYRAMID Night Lights, in an unsaleable condition from exposure in the Shop, can have them exchanged for NEW ONES, without any CHARGE, by sending them Carriage Paid to the Patentee, S. CLARKE, Pyramid Night Light Works, Child's Hill, London, N.W.

Show Cards and Counter Bills will be forwarded CARRIAGE PAID on application by letter or post card.

	RETAIL.	WHOLESALE.	REDUCED PRICES.—NET CASH
No. 1 Holds Half-a-pint Food, besides Water	Price 3s. 6d. each	30s. Per Dozen.	27s. per dozen.
No. 2 Holds Three-quarters of a Pint Food, besides Water	„ 5s. 0d. „	36s. „	30s. „
No. 3 Holds One Pint Food, besides Water	„ 6s. 0d. „	42s. „	33s. „
Clarke's Hot-water Lamps	„ 2s. 6d. „	20s. „	18s. „
„ Pyramid Night Lamps, Lacquered or Bronzed	„ 1s. 0d. „	8s. „	6s. „
„ „ „ Lights		7s. 6d. „	.. ..
Extras.—Porcelain Panakins, No. 1, 8s., No. 2, 9s., No. 3, 10s. per doz.		Tin Panakins	No. 1, 8s., No. 2, 10s., No. 3, 12s. per doz.
Lids .. .. No. 1, 2s.. No. 2, 3s., No. 3, 4s. „		Clear Glasses, 4s. ..	Roughed, 6s. .. Opaline, 6s. „

PATENT PYRAMID NIGHT LIGHT WORKS, CHILD'S HILL, LONDON, N.W.
AMERICAN DEPOT: 35 WARD STREET, NEWARK, NEW JERSEY.

Patent Pyramid Night Light Works, Child's Hill, London, N.W., *July*, 1884.

Dear Sirs,—Permit me to call your special notice to the above, showing the great reduction in the wholesale prices of **Pyramid** Nursery Lamp Food Warmers and **Pyramid** Night Lamps, on the 1st October next, and to the very **large profit** they will then bear to the retail dealer.

I wish also to call your attention to the note above, showing the exceptional advantages in selling **my** goods.

Orders for Lamps of not less than a dozen will be sent in a **free case, carriage paid,** to any part of the Kingdom.

Soliciting your early order, to be executed at the reduced prices on the 1st October,

I am, dear sir, yours obediently,
SAMUEL CLARKE.

COLTHURST & HARDING,

BRISTOL.

Contractors to the Right Honourable  *the Lords of the Admiralty.*

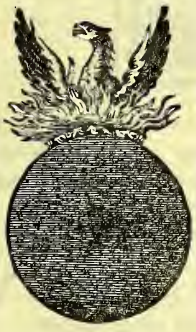
MANUFACTURERS OF

WHITE LEAD, WHITE ZINC, PAINTS, FINE & PULP COLOURS,

FOR PAINTERS AND PAPER STAINERS,

TEREBINE AND PATENT DRIERS.

HIGH-CLASS VARNISHES

TRADE MARK.  BALL DENOTES COLOR PAINT.

Of every description, for Painters, Coach Builders, and Japanners.

PATENT ENAMEL COMPOSITION, for Ships' Bottoms and Ironwork.

PAINTS

MIXED FOR USE, in 1, 2, 4, 7, and 14 lb. Tins. Universally acknowledged to be the Best in the Market.

Light and Dark Hard Drying Raw and Boiled Linseed Oil and American Turpentine.

IMPORTERS OF PETROLEUM, BENZOLINE, GASOLINE, AND OILS.

OIL REFINERS AND SOFT SOAP BOILERS.

Lists and Special Quotations on application. *Special Attention to Export Orders.*

Proprietors of the CELEBRATED ELECTRIC LIGHT OIL, the most Beautiful and Perfect Illuminator.

DAVID SALMOND & SON,

SEED CRUSHERS AND OIL REFINERS,

MANUFACTURERS OF

PURE LINSEED & COTTON CAKES,

ALSO

RAPE CAKES

FOR MANURE PURPOSES,

WILMINGTON OIL MILLS, HULL, YORKS.

Following is COPY of a REPORT by PROFESSOR AITKEN, of Edinburgh, on our "D. S. PURE" LINSEED CAKES:—

"Chemical Laboratory, 8 Clyde Street, Edinburgh, 3rd December, 1883.

"The Analysis of this sample of Linseed Cake is precisely what the Analysis of a first-class Linseed Cake ought to be I have carefully investigated the Sample in every way, and find it to be a pure and genuine Linseed Cake, in excellent condition.

(Signed) "A. P. AITKEN, D.Sc.,
"*Chemist to the Highland and Agricultural Society.*"

TO BRITISH, COLONIAL, AND FOREIGN CHEMISTS.

RECOMMENDED BY THE FACULTY.

Price— 12/- per Gross.

"Manna Cake"

THE SUBSTITUTE FOR CASTOR OIL (Bennette)

Retail, 1½d. each (18/- per Gross).

Registered Trade Mark, No. 22,133.

The mildest and most agreeable aperient known. A first-class Family Medicine for every household. Highly approved of by adults; children take it readily and do not suspect its properties. A most suitable aperient for women at all times, and during the whole course of pregnancy. Does not gripe, and leaves no bad effect as Castor Oil does. A digestive tablet and sweet to the taste.

LONDON WAREHOUSE—11 LONG LANE, E.C.

Manufactured by BENNETTE & COMPANY.

MANNA CAKE is sent out in Handsome Decorated Tin Boxes, suitable for display on the Counter.

SHOW TABLETS SUPPLIED FREE ON APPLICATION.

SAVAR'S CUBEB CIGARETTES.

Cubebs, Stramonium, and Cannabis Ind. (soothing). Relief in Asthma, Throat Cough, Bronchitis, Influenza. A Specific against Fogs.

Boxes (12) 1*s.*, 9*s.* per doz.; (36) 2*s.* 6*d.*, 24*s.* per doz.

Full Directions.

EVANS, SONS & CO., LIVERPOOL.

EVANS, LESCHER & WEBB, LONDON.

SAVARESSE'S CAPSULES

Of membrane, each containing 15 drops Pure Maranham

COPAIBA BALSAM,

Or, also of membrane, each containing 10 drops Purest Yellow

SANDAL WOOD OIL.

The efficacy of these valuable medicines is due to the ABSOLUTE purity of the Balsam or Oil, and to the very GRADUAL solvability of the membrane as compared with gelatine.

Copaiba, 2*s.* 6*d.*, 18*s.* doz. Sandal, 4*s.* 6*d.*, 36*s.* doz.

EVANS, LESCHER & WEBB, LONDON. EVANS, SONS & CO., LIVERPOOL.

GOLD MEDAL, INTERNATIONAL EXHIBITION, LONDON, 1884.

Liberal Supply of Coloured Counter Bills and Illustrated Books, as well as Samples for free distribution, and Show Cases to Dealers.

Wholesale, 25% off prices below. Delivered free in the United Kingdom. Terms, Cash with order.

NO MORE TOOTH-ACHE.

ELIXIR DENTIFRICE DES RR. PP. BÉNÉDICTINS 1373

DENTIFRICE ELIXIR.
DENTIFRICE POWDER.
DENTIFRICE PASTE.

DISCOVERED AND MANUFACTURED BY

THE REVEREND BENEDICTINE FATHERS

OF THE ABBEY DE SOULAC (FRANCE).

A single trial of any of the above will prove their superior efficacy. They insure against toothache, impart an unequalled whiteness to the teeth, and a delightful fragrance to the mouth and breath.

Elixir, 2s. and 4s.; Powder, 2s. and 3s.; Paste, 2s. Of all Chemists and Perfumers. Wholesale Depot—

CHARLES PEMBO & CO.,

11 QUEEN VICTORIA STREET, LONDON, E.C.

A DESCRIPTIVE CATALOGUE OF

RESPIRATORS

MANUFACTURED BY

BOURNE, JOHNSON & LATIMER.

No.	Description.	Shape.	Retail Price. s. d.		Wholesale Price. £ s. d.
1.	The Shilling Respirator	Oval, each	1 0	per doz.	0 8 0
2.	Metallic, Cotton Velvet Pads	" "	2 0	"	0 12 0
3.	" Silk Velvet Pads	" "	2 6	"	0 18 0
3A.	Silver-plated Wire, Silk Velvet Pads	" "	2 6	"	0 18 0
4.	" " " "	" "	3 0	"	1 1 0
5.	" " " " Without Ends	Square "	4 0	"	1 8 0
5A.	" " " "	" "	3 6	"	1 4 0
6.	" " Elastic Silk Mouthpiece	" "	4 0	"	1 10 0
7.	Gold-plated " Silk Velvet Pads	" "	7 6	"	2 8 0
8.	Threefold Silver-plated, Velvet Pads and Silk Mouthpiece	" "	6 0	"	1 16 0
9.	" Gold-plated, "	" "	7 6	"	2 8 0
10.	The Aerial Respirator, Silver-plated, Ladies'	Oval "	5 0	"	1 10 0
11.	" " Gold-plated, "	" "	6 0	"	2 2 0
12.	" " Silver-plated, Gents'	" "	6 0	"	1 16 0
13.	" " Gold-plated, "	" "	7 6	"	2 8 0
	(The Aerials may be had covered with black or drab.)				
14.	Gold-plated Wire, full size	" "	7 6	"	2 8 0
15.	Gold Plates, full size	" "	7 6	"	2 8 0
16.	Orinasal, Silver-plated Wire	Square "	4 0	"	1 10 0
17.	Ladies' Miniature, Silver-plated	Oval "	5 0	"	1 10 0
18.	" " Gold-plated	" "	6 0	"	2 2 0
19.	The Manifold Respirator, of variable power, containing six Metallic Plates, four of which are movable, Gold-plated	Square "	10 6	"	3 12 0
20.	Ditto ditto ditto ditto	Oval "	10 6	"	3 12 0
	(The Manifold Respirator may be worn with or without plates A and B.)				
21.	Gents' full size, Silver-plated	" "	5 0	"	1 10 0
22.	" " Gold-plated	" "	6 0	"	2 2 0
23.	The Cotton-wool Respirator, Silver-plated	Orinasal "	5 0	"	1 16 0
24.	" " Gold-plated	" "	8 6	"	3 0 0
25.	" " "	Oval "	5 0	"	1 16 0
	(As recommended by Professor Tyndall)				

Nos. 1, 2, and 3 .. .. Contain 1 Metallic Plate.
" 4, 5, 6, 10, 11, 16, 17, 18, 21, 22, 23, 24, and 25 .. .. " 2 " Plates.
" 7, 8, 9, 12, 13, 14, and 15 .. .. " 3 " "
" 19 and 20 .. .. " 6 " "

The following New Patterns have recently been added to Stock:—

No. 15A. A Cheap **Gold-plated OVAL Respirator**, to sell at 3*s.* 6*d.* **PRICE 30s. PER DOZEN.**

No. 25A. **Silver-plated OVAL Cotton Wool**, to sell at 4*s.* **PRICE 30s. PER DOZEN.**

No. 27. **The Inhaler Respirator**, all metal, nickel-plated, with hinged front and space to contain medicated wool for Inhalation. Price **16**/- per dozen.

Each Respirator (from No. 4 upwards) is neatly put up in a Metal Box, and is priced so as to yield half profit.

A liberal supply of handbills and show-cards will accompany each parcel.

The following assortment contains the leading patterns:—

No. 1 Case.

Two each of Nos. 1, 2, 3, 4.			
One " " 5, 8, 10, 12, 14, 15, 17, 18, 20, 21, 22.			
Producing retail		£4 5 6	
Cost	£2 6 8		
Less 10 per cent.	0 4 8		
		2 2 0	
Showing a **PROFIT** of		£2 3 6	

No. 2 Case.

Six each of Nos. 1, 2, 3, 4.			
Two " " 5, 6, 8, 10, 12, 17, 18, 21, 22.			
One " " 7, 9, 11, 13, 14, 15, 16, 20, 23, 25.			
Producing retail		£10 18 6	
Cost	£5 18 2		
Less 10 per cent.	0 11 10		
		5 6 4	
Showing a **PROFIT** of		£5 12 2	

With Orders amounting to £2 NET, we will send a Mahogany Glass-top Counter Case, with Hinged Lid, FREE OF CHARGE; and with Orders amounting to £5 NET, a Handsome Mahogany Counter Case (size 22 × 12 × 4), with Sloping Top, Hinged Back, and Sliding Tray.

BOURNE, JOHNSON & LATIMER,

WHOLESALE & EXPORT DRUGGISTS' SUNDRIESMEN,

34 & 35 CASTLE STREET, HOLBORN, LONDON, E.C.

SANGER & SONS'

PRICE CURRENT,

WITH ADDITIONS AND ALTERATIONS,

UP TO OCTOBER 1,

OF *PATENT MEDICINES,*

PERFUMERY,

LOZENGES.



OF *DRUGGISTS' SUNDRIES,*

MINERAL WATERS,

SPONGES, &c.

FREE ON RECEIPT OF BUSINESS CARD.

AGENCIES OF ALL KINDS UNDERTAKEN ON FAVOURABLE TERMS.

MESSRS. SANGER & SONS beg to call the attention of the Trade to the fact that their Prices, with the best Discounts off, come out in many cases lower than the published New Lists of other houses. A few examples of Prices are given below.

Articles charged	**4s. 0d.**	**come out net**	**3s. 5d.;**	**usual net prices**	**3s. 6d.**
,,	**6s. 0d.**	,,	**5s. 1½d.**	,,	**5s. 2d.**
,,	**9s. 0d.**	,,	**7s. 8¼d.**	,,	**7s. 9d.**
,,	**10s. 6d.**	,,	**8s. 11¾d.**	,,	**9s. 0d.**
,,	**25s. 0d.**	,,	**21s. 4½d.**	,,	**21s. 6d.**
,,	**28s. 0d.**	,,	**23s. 11½d.**	,,	**24s. 0d.**

ENEMAS—HIGGINSONS.

		Subject to Discount.	Nett.
Large size, Unvarnished Brown Rubber, fitted with Bone Rectum Pipe, in cardboard box (*complete dozen*, 23/-) ..	per doz.	£1 4 0	20/6
Ditto ditto in cedar box, extra per dozen, 1/-.			
Ditto ditto with Vagina Pipe and Shield, extra per dozen, 4/-.			
Small Size, Green Rubber, disconnecting, with Bone Rectum and Elastic Vagina Pipes to plug, Black Shield, in slide cedar box (*complete dozen*, 28/6)		1 10 0	25/7¾
Large size, with Bone Rectum and Elastic Vagina Pipe, both to screw on and off, Black Shield, in slide cedar boxes (*complete dozen*, 35/-)	,	1 16 0	31/2½

Special attention is called to the advantages of above, as, being made to screw on and off, are much easier to clean. Further Sizes and Prices in Catalogue.

Purchasers of Druggists' Sundries, Smelling Bottles, Hair Brushes, Combs, Sponges, Thermometers, Filters, and Boxes of all descriptions should pay a visit to our Showroom before purchasing elsewhere, in order to compare our prices and quality against other houses.

J. SANGER & SONS, 489 Oxford Street, LONDON, W.

THE SPECIAL ATTENTION OF THE TRADE IS CALLED TO

BENZINE COLLAS,

Which is acknowledged on all hands to be the most reliable Preparation for removing Grease, Oil, Tar, Wax, or Paint from every description of Wearing Apparel or Household Stuffs. It neither injures the colour or texture, nor leaves any odour or stain. It is neatly got up, and is a most saleable article. Observe the word "COLLAS" on label and cap.

1,000 Handbills, with Name and Address,

Will be printed for any Chemist who gives an order for

£1 WORTH of BENZINE COLLAS,

At the following prices, viz. :—

6d. Size	**4s. per dozen, subject to Discount.**		
1s. Size	**8s.** ,,	,,	,,
1s. 6d. Size	**13s. 6d.** ,,	,,	,,

Special Quotations to Shippers and large Buyers on application to

J. SANGER & SONS,

489 OXFORD ST., LONDON, W.

KEARSLEY'S WIDOW WELCH'S

FEMALE PILLS.

These are universally acknowledged to be the Genuine, and Druggists may safely recommend them.

CAUTION!

The Proprietors of Kearsley's Original Widow Welch's Female Pills find it incumbent on them to caution the purchasers of these Pills against various imitations by parties who have no knowledge of their peculiar preparation, the Original Recipe having been sold to the late G. Kearsley, of Fleet Street, whose Widow found it necessary to make an Affidavit, for the protection of her property, in the year 1798. The Genuine Recipe for **Widow Welch's Female Pills** has been prepared by them for **97 Years!** Chemists are particularly requested to remark that, as a testimony of authenticity, each bill of directions contains an Affidavit, and bears the signature of "C. KEARSLEY," in writing, also engraved on the Government Stamp, and each box is wrapped in WHITE paper.

1,000 Handbills, with Name, and 2 Tin Showcards,

Supplied with all Orders for One Dozen (13) *Boxes,*

PRICE 27s. PER DOZEN, subject to usual Discount.

Special Quotations to Shippers and for large quantities, on application to

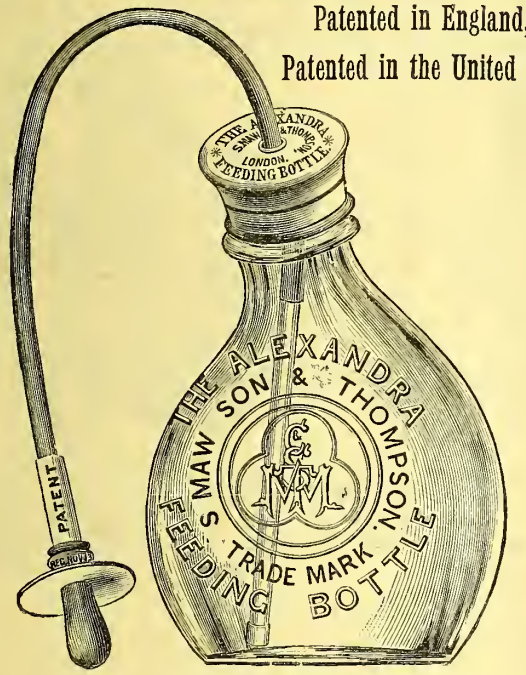
J. SANGER & SONS,

489 OXFORD ST., LONDON, W.

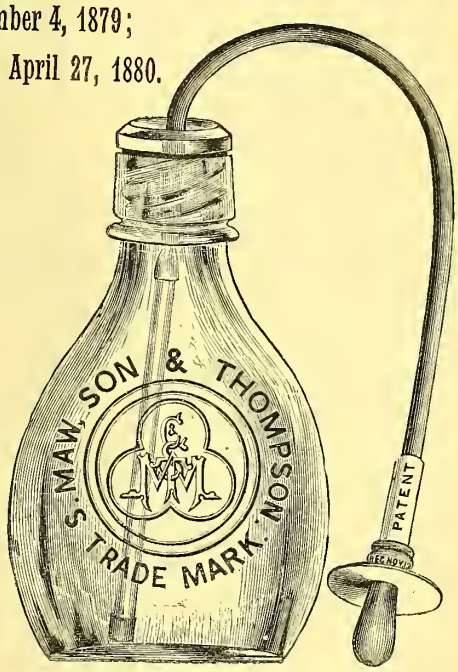
S. MAW, SON & THOMPSON'S

FEEDING BOTTLES.

Patented in England, December 4, 1879;
Patented in the United States, April 27, 1880.



THE ALEXANDRA.
(Earthenware Cap.)



THE EXPORT.
(Glass Screw Stopper.)

		White Fittings.			Black Fittings.		
Alexandra, Earthenware Caps.....	per doz.	—	7/6	11/-	—	8/6	12/-
Alexandra, Earthenware Screw Stoppers	,,	—	—	11/-	—	—	12/-
Alexandra, Glass Screw Stoppers	,,	4/-	7/6	11/-	4/9	8/6	12/-
Export, China or Wood Top Corks	,,	3/4	—	—	4/	—	—
Export, 2nd Quality, Wood Top Corks ...	,,	2/9	—	—	3/6	—	—
Export, Earthenware Caps	,,	—	7/3	—	—	8/3	—
Export, Glass Screw Stoppers	,,	4/-	7/6	—	4/9	8/6	—

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S. MAW, SON & THOMPSON, LONDON.

THOMPSON MILLARD'S

FEEDING BOTTLES.



THE "MATER."—Screw Glass Stopper.



THE "MATER."—Tin Screw Cap.



THE "MATER."—Porcelain Cap, Gold Lines

No. in Catalogue.		White Fittings.	Black Fittings.
		Per doz.	Per doz.
531, 532	The **MATER,"** green glass, bent neck, wood top corks, in 1 doz. boxes	3,6	4/-
533, 534	" " " " each in box	4/3	4/9
538, 539	" " " screw glass stopper, in 1 doz. boxes	4/-	4/6
543, 544	" white glass " earthenware caps, each in box	7/6	8/-
548, 549	" " " screw glass stopper, each in box	7/6	8/-
558, 559	" " " " extra tube and teat	10/-	11/-
552A, 552B	" " " tin screw caps	8/-	9/-
562A, 562B	" " " " very superior fittings	10/-	11/-
553, 554	" " " porcelain caps, gold lines	10/-	11/-
563, 564	The **"IMPERIAL,"** suitable for export, green glass, straigbt, wood top corks, in 1 doz. boxes	3,3	3/9
565, 566	" " " " each in box	4/-	4/9
570, 571	" " " metal screw caps, in 1 doz. boxes	4/3	4/9
575, 576	" " wbite glass, straight, earthenware caps, each in box	7/-	7/6
580, 581	" " " " pure tin caps, each in box	7/6	8/-
584A, 584B	The **"BRISTOL,"** green glass, bent neck, wood top corks, in 1 doz. boxes	3/-	3/6
584C	" white " " earthenware caps, each in box	—	4/6

584C *is one of the best lines ever introduced is put up in handsome box, with neat label.*



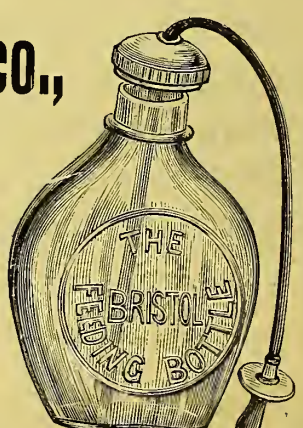
THE "IMPERIAL."—Tin Screw Cap.

THOMPSON, MILLARD & CO.,

LIMITED

CURTAIN ROAD,

LONDON, E.C.



THE "BRISTOL."—Earthenware Cap.

NEWBERY'S

SIXPENNY "GLOVE" SMELLING SALTS,

Watch Shape, with Screw Metal Cap. Send for a Sample Dozen.

EUCALYPTOL FOR FLIES,

In Bottles to Retail at One Shilling each.

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(1*d.* Lockets), Three Dozen in a Box.

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Established 1746.

ROBINSON'S ORANGE WINE

(VIN. AURANTII, B.P.)

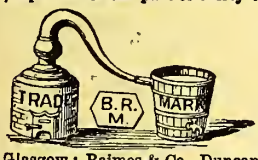
Specially prepared for Quinine Wine, does not deposit, will keep good in any Climate, and well adapted for Export Trade. Supplied in Casks containing 9, 18, 30, 60, or 120 Gallons. Terms on application.

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1 doz. mounted on a handsome Illustrated Show-Card, Retail, 6d. each; Wholesale, 3s. 6d. per doz. It is especially adapted for Export Trade, and may be safely sent to the hottest climates, as each glass tube is hermetically sealed and enclosed in a cardboard case.

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	Per lb.		Per lb.		Per lb.		Per lb.
Aqua Anethi, Concent.	4/0	Aqua Cinnam. Ver. Concnt.	6/0	Aqua Fœniculi, Concent.	4/0	Aqua Pimentæ, Concent.	4/0
,, Anisi, ,,	4/0	,, Cassiæ ,,	4/0	,, Menth. Pip. ,,	4/0	,, Rosæ ,,	8/6
,, Camphoræ ,,	4/0	,, Flor. Aurant. ,,	8/6	,, ,, Ang. Con.	6/0	,, Rosæ Virgin ,,	10/6
,, Carni ,,	4/0	,, Flor. Sambuci ,,	8/6	,, ,, Virid. ,,	4/0		

The above are put up in Bottles of ½lb. or 1lb. and upwards, each of which has the Inventor's Protection Label over cork.

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IMPROVED

JUJUBES & PASTILLES

BY PATENT PROCESS.

SILVER MEDAL,  PARIS, 1878.

NOTES ON THE PARIS EXHIBITION, 1878.

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JUJUBES at 2/- per lb., and in Boxes at 4/- and 8/- per doz.
PASTILLES (Oval) at 2/2 per lb., and in Boxes at 4/4 and 8/6 per doz.
PÂTE DE GUIMAUVE, Cubes or Pastilles, at 2/6 per lb., and in Boxes at 8/- doz.
" " Sheet, at 2/ per lb.

PECTORAL FRUIT PASTILLES (Registered).

A bronchial and pulmonic Jujube of delicious flavour.
Sold only in round Boxes at 1/-, 1/9, and 3/ each; 9/-, 16/-, and 27/- per doz.

CRYSTALLISED FRUIT PASTILLES, 1/6 per lb., separate or mixed fruits.
" " " in 7-lb. Boxes, 10/-, " "

SPECIAL NOTICE.

JUJUBES and PASTILLES can always be made any special flavour, colour, or shape, if a quantity of not less than 56 lbs. be ordered at a time. Quotations given.

SUPERIOR UPRIGHT SHOW CASES.

Frames fitted with Glass Shelves; Silvered Glass Backs and lettered in Gold; with three Glass Dishes to display three kinds of JUJUBES and PASTILLES. Price 42/- each. Size, 21 in. high, 10 in. broad, and 8 in. deep.

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Bank
Birkbeck

Books
Ballière (Ince's Grammar, &c.)
Chemiker Zeitung
Dobell, Dr., Works by
Kilner (Modern Pharm.)
Kimpton (Discount)
Lewis, H. K.
Murray (Kirke's Physiology)
Reece (Medical Guide)
Renshaw
Smith, J. (Aërated Waters)

Bay Rum
Riise, St. Thomas, W.I.

Beverages
Edwards (Tretotal Toddy)
Salus Manufacturing Co.

Bottles
Breffits (Limited)
De Luca
Drury, W. H.
Hearn
Isaacs, I., & Co.
Kilner
Newbery
Poths
Toogood
Vallet

Boxes
Brehmer, Aug. (Folding)
Estes & Sons
Munson & Co. (Folding)
Nutter (Parcels Post)
Self-opening Tin

Bottle Caps
Hunt, W. F.

Butter Colour
Bunsen, Benson (Annattoine)
Bush, W. (Marigoldine)
Fullwood, R. J., & Co.
Meyer & Henckel
Oldfield Pattison

Brushes
Ashworth Bros. (Metallic)
Fordham, W. B. (Paint)
Maw (New Tooth)

Camphor
Howards
May & Baker
Murray

Capsules
Chevalier & Co.
Denoual
Durant, Thomas
Evans, Sons (Savaresse's)
Gabriel & Troke (Horsehalls)
Planten (Medicinal)
Turley (Red Cross)

Carbolic Acid
Zimmermann

Cement
Kay Bros.

Chalk (Precip)
Brothers & Co.
Levermore

Charcoal
Smith, Geo., & Co.

Chemicals
Bush, W., & Co.
Forster & Gregory
Gaskell, Deacon (Bicarb. Soda)
May & Baker
Smith, T. & H.

Chest Protectors.
Pattison

Chinoline
Zimmermann

Chlorodyne
Davenport
Towle
Wright & Co.

Chloroform
Duncan
Macfarlane
Smith
Zimmermann

Cigars
Benson
Partridge
Savars
Symonds & Co.

Cocoa and Chocolate
Cadbury
Fry's Malted

Cod-liver Oil
Burgoyne Burbidges
Cocking (Japan)
Jenson
Smith, T. J.
Southall Bros.
Woolley, J., Sons & Co.

Coffee
Clark, E., & Co.
Evans (Conroy's Malt)
Phillips & Son
Symington

Combs
Stewart, S. R., & Co.

Corks
Société des Bouchons

Corn Cures
Doric Curative Co.
Gardner, C. & J. P.
Hargreaves
Robinson
Young

Dentistry
Bennett, C. (Diplomas)
Buck (Lessons)

Disinfectants
Boake (Tusous)
Condy & Mitchell
National Chemical Co.
New Carbolic Co.
Sanitas

Dog Biscuits and Dog Medicines
Spratts Patent

Dentifrices
Barton
Beddard
Darling (Coffin's)
Eskell's
Jewsbury
Pembo
Reece & Co.
Ruspini
Sutton
Thompson & Capper
Woods

Druggists' Sund
Baiss Bros.
Bourne, Johnson & Co.
Cowan (Vaccinatn. Shields)
Evans and Sons
Lynch
Maw
Newbery
Sanger
Savar
Southall Bros. (Towels)

Drug Grinders
Aitken & Son

Eau de Cologne
Ewins, J. M. "Gegenüber"
Farina, J. M., No. 4

Dyes
Leathart
Morris, C. A.
Pronk, Davis & Co.

Electric Appar
Darton (Bells)
Hallett & Co.

Enemas
Davidson Rubber Co.
Evans, Sons
Ingram
Lynch
Tollay, Martin
Maw, Son, & Thompson

Essences (Fruit and Soluble) & Essential Oils
Burgoyne
Bush (Lemons, &c.)
Cocking (Peppermint, Japan)
Evans Sons
Felton (Eucalyptus)
Fratelli
Harker, Stagg & Moss
Hay (Ginger and Lemons)
Johnson, J. H. & S. (Mustard
Oates, G., & Co.
Raynaud (Lavender, &c.)
Rocke, Tompsitt
Schlesinger
Symes (Lavand.)
Todd, A. M. (American Peppermint)
Wright, Layman (Almond)

Ethers
Polglase
Robbins

Extract of Meat
Brand
Evans Sons
Kreochyle
Liebig Co.
Moir (Soups)
Poths (Leube Rosenthal)

Face Powders
Chubb (Violet Powder)
Crown Perfumery Co.

Feeding Bottles
Bourne
Fordham, W. B., & Sons
Hearn
Kilner
Maw
Riley & Co.
Thompson, Millard

Filtering
Doulton & Co. (Filters)
Judson, D., & Sons
Maignen (Filtre Rapide)
Schwenkner (Paper)
Silicated Carbon
Universal House Filter

Foam Producers
Evans, Sons (Frothine)
Bush

Food (Infants' and Invalids')
Brand
Mottershead
Ridge, Dr.
Scott, A. & R (Oat Flour)
Van Abbott (Diabetic)

Fuller's Earth
Chubb
Mumford

Gas Engines
Crossley Bros.

Ginger Ale
Bingley
Cantrell
Harston
Hay
Hooper
Schweppe (Dry)

Gloves, Bath, &c.
Condron
Pattison

Ginger Essence
Evans, Sons
Goodall (Beer Powders)
Hay

Grinding
Brinjes & Goodwin
Burroughs, Wellcome
Follows & Bate
Universal Mixing Machine

Gums
Clarke, G. F. H.
Fink & Co.

Guttapercha
Duncan
Stevens

Hair Preparations
James & Co. (Herbal)
Robare (Aureoline)
Rogers (Lotion)
Savar

Herbalists
Allaire Woodward
Bittner, F. L. (Moravia)

Honey
Southall Bros.

Homœop Medcns
Butcher
Epps & Co.
Gould
Keene & Ashwell
Leath & Ross
Thompson and Capper
White and Lansdale

Hypophosphites
Forster & Gregory

Ice
Harrison

Inhalers
Austin (Pocket)
Maw, Son (Earthenware and Antiseptic)

Ink
Antoine
Beardsall (Sack Marking)
Bewley (Drapers')
Bond's Daughter (Mark)
Bowness (Writing)
Bunker, J. (Marking)
Duncan, Flockhart & Co.
Hyde & Co.
Murphy (Marking)
Proctor (Defiance)

Insecticide.
Burgoyne, Burbidges
Cooper, William
Fordham, W. B., & Sons
Galzy
Steiner
Woolley, Sons & Co.

Ketchup
Tyrer, P.

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Frost, Edw. (Chamois)
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Lee, T. P.
Moore, A. F. & H.

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Butler, McCulloch
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Hoff, M.
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Fordham
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Evans, Lescher (Fossiline)
Ewen (Lard)
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Kilner Bros.
Lloyd, A., & Sons

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Hoge's Horehound Honey
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Horsford (Acid Phosph.)
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Kendall (Composition Ess.)
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Lalor (Phosphodyne)
Lemon (Charcoal)
Lincoln (Clarke's Mxture)
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Mills, H. F. (Dolru)
Powell's Balsam
Quillnia
Quina Laroche
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Ruspini (Styptic, &c.)
St. Dalmas
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Wyleys, A.

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Mather
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St. Dalmas
Seabury

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Baumgartner
Bradley
Brown
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Guest, W., & Son
Lewis, D. J.
Oakey
Pickering
Metz (Vogt's Metal)

Podophyllin &c
Keith

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De Luca, G. V.
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Poths, H., & Co.
Toogood, Wm.
Wedgwood, Josiah, & Sons

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Whiffen

Rennet
Meyer & Heuckel

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Salicine
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Whiffen

Salicylic Acid
Burgoyne
Zimmermann

Salines
Evans, Lescher

Salt, Bay
Hassall, Thomas

Santonin
Bieber, J. D.

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Goodall
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Liverpool School
London Homœopathic Hospital
Manchester College
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School of Pharmacy
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Tomlinson
Treble
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Biggs
Cooper

Soap (Soft)
Chiswick
Colthurst
Thorogood (Saddle)

Soda Bicarbonate
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Spectacles
Darton

CONTINUED ON PAGE 48.

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Peculiarly efficacious in all cases of Debility and Weak Digestion.

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INGLUVIN has answered admirably in several cases of obstinate vomiting in pregnancy which have occurred in my practice, when all other drugs have failed. (Signed) RICHARD PARAMORE, M.R.C.S. Eng.
Hunter Street, W.C., May 1, 1880.

I had a case of persistent vomiting two years ago (in the case of a young lady) which resisted all the usual remedies. At length I tried INGLUVIN which proved eminently successful, not merely temporarily, but permanently. JAMES NICOL, M.D.
Llandudno, N. Wales, May 12, 1881.

Prepared only by **WILLIAM R. WARNER & Co.**, Manufacturing Chemists and Wholesale Druggists (Physicians' Supplies a Specialty), PHILADELPHIA. SOLE DEPOT FOR THE UNITED KINGDOM.

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4.—LONDON, W.—In a pretty locality; good-class retail and dispensing; returns £450 yearly; double-fronted corner shop; house easily let off if wished; price about £400.

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SHEFFIELD SUB.—Profitable Branch; returns now £300; have been about £600, and could again; price £200.

GLOUCESTERSHIRE.—First-class Retail and Dispensing; returns £800; fashionable town; suit major man well; could be doubled; valuation about £700.

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3. LONDON, N.W. (main road).—Ready money business; returns over £500, and increasing, at very good prices; price about £500.

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6. LONDON, E.—Branch under management; returns £350, at exceptional profits; price £170.

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The executors are perfectly satisfied with your conduct of the matter, and for my own part I may say that, if in a similar case I require the services of a valuer, I shall be happy to call you in.

Yours faithfully,
FRANK S. GOODWIN.

Mr. Thomas Tomlinson, 41 Corporation Street, Manchester.

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.....	2	4½ × 6	1½ „	„	1 0	1 0	1 0	1 0	2 0	1 6
.....	3	4½ × 7½	2 „	„	1 6	1 6	1 4	1 4	2 8	2 0
.....	3½	5½ × 7¾	3 „	„	2 3	2 3	2 0	2 0	4 0	3 0
.....	4	6½ × 8½	4 „	„	3 0	3 0	2 8	2 8	5 4	4 0
.....	5	8 × 9¾	6 „	„	4 6	4 6	4 0	4 0	8 0	6 0
Long Shape	1	2¾ × 4	1 „	„	0 8	0 8	0 8	0 8	1 4	1 0
.....	2	4¼ × 6¾	2 „	„	1 6	1 6	1 4	1 4	2 8	2 0
.....	2½	4¼ × 8¼	3 „	„	2 3	2 3	2 0	2 0	4 0	3 0
.....	3	5¼ × 9¼	4 „	„	3 0	3 0	2 8	2 8	5 4	4 0
.....	4	6½ × 11	6 „	„	4 6	4 6	4 0	4 0	8 0	6 0
.....	5	7½ × 14½	8 „	„	6 8	6 8	6 0	6 0	12 0	8 0
Oval Shape	1	4½ × 6½	2 „	„	1 6	1 6	1 4	1 4	2 8	2 0
.....	2	6¼ × 8½	4 „	„	3 0	3 0	2 8	2 8	5 4	4 0
.....	3	7¾ × 9¾	6 „	„	4 6	4 6	4 0	4 0	8 0	6 0
Saddle Shape	1	6¼ × 12¼	6 „	„	4 6	4 6	4 0	4 0	8 0	6 0
.....	2	7 × 15	8 „	„	6 8	6 8	6 0	6 0	12 0	8 0
.....	3	8 × 16	12 „	„	8 8	8 8	8 0	8 0	15 6	12 0
Wrist	1	3 × 10¼	3 „	„	2 3	2 3	2 0	2 0	... ...	... ...
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ditto ditto ..	2	„ 7½ „	.. ..	6 0

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„ Adhæsivum	3/6	..	..	..	..	..
„ Ammon. c. Hydrarg	16/0	..	..	30/0	36/0	5/6
„ Antim. Pot. Tart..	10/0	..	..	24/0	30/0	4/0
„ Belladonna	18/0	20/0	27/0	27/0	36/0	5/6
„ Calefaciens	11/0	12/0	15/0	15/0	24/0	4/6
„ Cerat Saponis	8/0	9/0	14/0	14/0	24/0	4/6
„ Dreadnought	9/0	10/0	14/0	14/0	24/0	4/6
„ Elemi	9/0	10/0	14/0	14/0	24/0	4/6
„ Ferri	9/0	10/0	14/0	14/0	24/0	4/6
„ Galbani	14/0	..	..	24/0	30/0	4/6
„ Hydrarg.	14/0	15/0	18/0	18/0	27/0	4/6
„ Iodine	16/0	..	..	30/0	36/0	5/6
„ Opii	18/0	20/0	27/0	27/0	36/0	5/6
„ Picis Co.	11/0	12/0	15/0	15/0	24/0	4/6
„ Plumbi	5/6	6/6	12/0	12/0	21/0	4/0
„ Potass. Iodid.	16/0	..	..	30/0	36/0	5/6
„ Resinæ	5/6	6/6	12/0	12/0	21/0	4/0
„ Roborans	6/0	7/0	12/0	12/0	21/0	4/0
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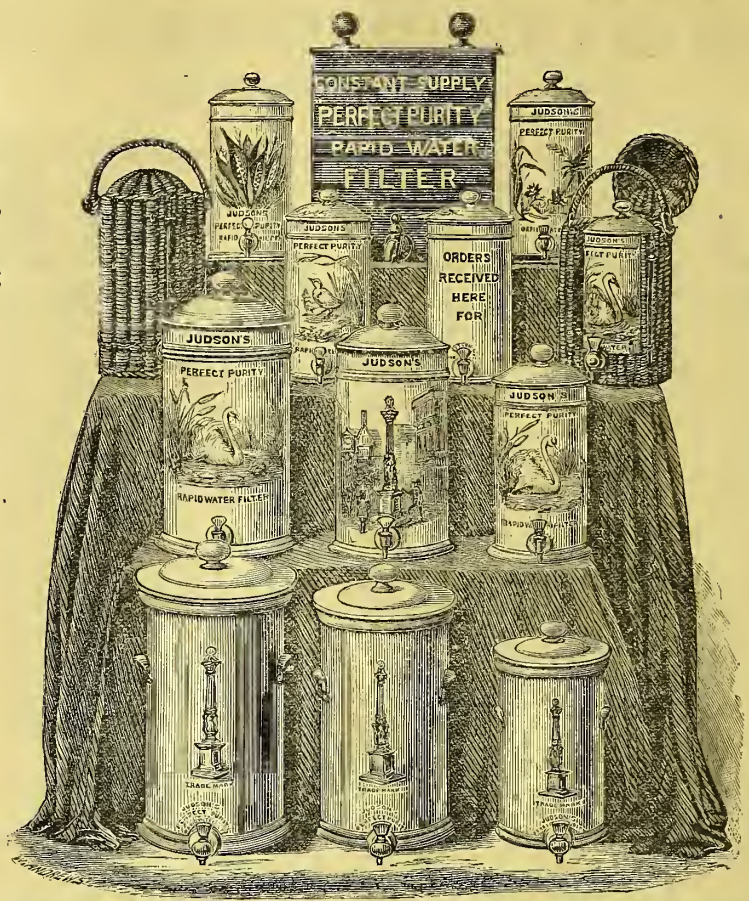
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Thirty pairs Maw's forceps, many new; a lot of scalers, excavators, lancets, &c.; price the lot 3*l.* 10*s.* Address, R. Gleave Hulme, L.D.S., R.C.S., 97 Ebury Street, S.W.

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Eight oz. pepsine porci pur., 2*s.* 6*d.*; 8 oz. pulv. scammon. alep. opt., 7*s.* 6*d.*; 2 oz. morph. hydrochlor., 10*s.* W. J. Pridgeon, Hawkhurst.

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Spanish juice suitable for cough preparations, haust. nig., &c., 2*d.* lb., 15*s.* cwt., sample two stamps. Hadley, Shoreham.

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Microscope (never used), with three powers, 8*s.* 6*d.*, cost double (owner dead); strong silver eye-glass, 2*s.* 6*d.*; exchange taken. Medicus, Newferry, Birkenhead.

Chemical chest, apparatns, and reagents, expressly for Minor examination; sell or exchange for microscope; also mounted officinal plants, 3*s.* 6*d.*, cost 7*s.* 6*d.* Mr. Ebbage, 34 Queen Square, Wolverhampton.

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Literature.

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Nearly new, Wills' "Materia Medica," with plates, 5*s.* 6*d.*; Wills' "Pharmacy," 3*s.* 6*d.* Neil, 2 Broadway, Brixton Hill.

Cooley's "Cyclopædia," fourth edition, 12*s.* 6*d.*; Squire's "Companion," 4*s.*, good as new, carriage paid. Alexander Gunn, Duns, N.B.

132 *Lancets* and *Medical Times*, containing Drs. Barnes' and Tyler Smith's illustrated lectures on "Midwifery," &c., 1*d.* each; 2 years' "Science Gossip," highly interesting, 3*s.* 6*d.*, cost 10*s.*; 18 *Chemist and Druggists*, 3*s.*, waste-paper price; exchange taken. "Medicus," Newferry, Birkenhead.

Soda-water Plant.

Barnett & Foster have some second-hand soda-water machinery of their own for sale. Apply, 26T Eagle Wharf Road, Hoxton, N.

Second-hand soda-water plant—several in stock. Address, Bratby & Hinchliffe, Sandford Street, Ancoats, Manchester.

Shop Fittings.

Show-bottles, specie-jars, shop-jars (all sizes and colours), lamps, store-bottles, glazed cases. 21 Broadway, Deptford.

Two show-stands for window, painted deal, good as new; 4-grain pill-machine, marble slab. Brown, Chemist, Dover.

Wall-case, 6 feet, as Maw's A 86, sheet glass, in good condition, price 10*l.* or offers. Hughes, Chemist, Swansea.

For sale, new specie-jar (York Glass Company's), 31 inches high, fig. 213; marked "Magnesia," Pharmaceutical arms; 50*s.* Shaw & Co., Doucaster.

Half-gallon tincture-press, nearly new, as Maw's fig. 20; 8-pint cast-iron mortar, as Maw's fig. 29; offers wanted. Cooper, 1 Princess Road, Kilburn, N.W.

The entire fittings of several handsome chemists' shops for disposal, to suit all-sized shops. Lloyd Rayner, 46 De Beauvoir Crescent, Kingsland, London, N., and Leytonstone, E.

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Abraham's revolving advertising-lamp, cost over 8*l.*, particulars on inquiry; two handsome specie-jars, height 24 inches, gilt covers, one Royal arms, other Prince of Wales' arms; two stands for same, polished mahogany octagonal base; the two complete with stands cost about 10*l.*; almost equal to new; no reasonable offer for any of the above refused. Walter Stead, Westgate, Heckmonwike, Yorks.

Eighty blue earthenware shop-jars; 2 lbs. 1*s.* 6*d.*, 3 lbs. 2*s.*, 4 lbs. 3*s.*, 6 lbs. 4*s.* each, labelled inclusive to order; glass jars and covers, various shapes; 1 and 2 gallon show carboys; 20-oz., 30-oz., and 40-oz. opal shop-rounds, carboy-shape; 6-quart digesters; outside lamp; three sea medicine chests; three mahogany shop-chairs, and other shop-effects, to be sold cheap. On view at 311 Goswell Road, London, E.C.

Second-hand Fittings.—Nest 47 usual drug drawers. 50⅝ ins. long, 47½ ins. high, 3*l.* 10*s.*; counter-case, as Maw's A 4, 42 in. long, 25 in. wide, 23 in. high, no carving, 6*l.*; Spanish mahogany dispensing-screen, plate-glass sashes, tablets, pilasters, trusses, 107 in. long, 23½ in. high, 7*l.* 10*s.*; mahogany wall-case, three bent plate-glass flaps, silvered plate to ends, 73⅝ long, 21 in. deep, 19¼ in. high, 6*l.* 10*s.*; plate-glass counter-case, 43 in. long, 16 in. wide, trays, 2*l.*; 19 plate-glass shelves, polished edges, various lengths, and widths, 2*s.* each; 2 specie-jars, arms, ornamental tin covers, 21 in. high, and stands, 3*l.*; 4 specie jars whitened, and 3 plain ornameutal tin covers, scroll lahels, 23½ in. high, and plinths, 30*s.* each; 6-gallon carboy, cut stopper, 12*s.* 6*d.*; 3 3-gallon carboys; 1 2-gallon flat-front and 3 stands, 27*s.* 6*d.*; 2 3-gallou cylinders, 10*s.*; 15 1-lh. hlue pots and 55 stoppered rounds, no lahels, 38*s.*; 2 counter gas pillars, 15*s.*; 5 gas window-branches, 12*s.* 6*d.* Hawke & Son, Wild Court, Great Wild Street, London.

Nests mahogany shop-drawers, as A 79 Maw's, 2 ft. long, 25*s.*; 4 ft. long, 50*s.*; 6 ft. long, 75*s.*; 8 ft. long, 5*l.*; 10 ft. long, 6*l.* 5*s.*; 12 ft. long, 7*l.* 10*s.*; complete shop-fixtures, as A 82 Maw's, 10 ft. long, 17*l.*; 12 ft. long 20*l.*, as A 83; 4ft. long, 7*l.*; 6 ft. long, 10*l.*; 8 ft. long, 14*l.*, as A 84; 10 ft. long ditto, with glass lahels and knohs, 21*l.*; 12 ft. long ditto, 25*l.* 10*s.*; handsome revolving counter show-case, as A 1 Maw's; two handsome counter-cases, as A 4 Maw's; three handsome show-cases, as A 5, 6 ft. long, 8 ft. long; plate-glass counter-cases, as A 8 Maw's; 15 bent-glass counter-cases, as fig. A 15, A 16, A 17, A 18 Maw's; cases and desks, as A 30, 31, 32; sponge-cases, as A 41, 42, 43; dispensing-screens, as A 53, 54, 55, 56, all lengths, one 5 ft. long, one 6 ft. long, two 7 ft. long; handsome dispensing-screens, with mirror centres and a case at each end; tooth-brush cases, as A 9, 10 Maw's; counters, all designs, as A60, 61, 62, 63, 64 Maw's; dispensing-counters and screens, A 66, 67, 68, 69, 70; shop-chairs; shop-lamps, with hrackets or pillars. Lloyd Rayner, 46 De Beauvoir Crescent, Kingsland, London, N., and Leytonstone, E.

Shares.

Splendid bargain, 12½ per cent. secured interest. For disposal, thirty-five shares of 5*l.* each, fully paid. Address, "Executrix," Messrs. Deacon's, Leadenhall Street, London.

Formulæ.

Honest, Reliable Formulæ, all in actual commerce, satisfaction guaranteed.—"Glycerine Cream," an elegant preparation for roughness of skin, invaluable at all seaside resorts, certain sale; "Entirely New Remedy for Toothache," gives instant ease, not injurious to other teeth; "Nigerine," jet-black, waterproof patent blacking, cheaper, sweeter, and better than Nubian; "Digestive Relish," best and cheapest sauce in creation, from 3*s.* gallon; "Lupuline Bitters," equal to American in every respect, one-third price; "Limes and Glycerine," elegant, creamy, snow-white, quite inseparable, pronounced best in market; "Foaming Dentifrice," resembles Floriline, costs one-eighth; "Rheumatic Embrocation," most excellent, cannot be surpassed in cheapness and efficacy; "Blood-purifying Powder" (London surgeon's recipe), popular spring and autumn remedy; "Anti-spasmodic Elixir," simple, reliable, always efficacious; "Camomile and Quinine Pills" for indigestion, &c., frequently preferred to Norton's; "Effervescent Depurative Saline," *facsimile* of Eno's, costs 10*d.* lb., entirely soluble, keeps well; "Cryptzymosis," certain speedy cure for gleet, &c.; "Mist. Gonorrhœa" (capivi), nauseons taste masked, unfailing remedy; "Hair-restorer" (*sine* sulphur), clear, sweet, economical, confidently recommended; "Liver Pills" (vegetable), gentle action, always effectual; "Lavender Water," superb fragrance, lasting, equals Sainsbury's; "Occasional Pills" (for ladies), most reliable, preferred to Widow Welch's; "Essence for Deafness," simple and effectual; "Podophyllin and Taraxacum," pleasant taste, vastly superior to similar preparations; "Pile Powders and Ointment," cure and prevent hæmorrhoids; "Quinine and Iron Tonic," bright and unchangeable, resembles Pepper's; "Worm Syrup," entirely vegetable, pleasant and rapid action; "Ringworm Specific," certain rapid cure; "Tic Pills," uncqualled in efficacy, many testimonials; "Chlorodyne," inseparable, perfectly soluble, quite equals Brown's; "Marking Ink," indelible, no waste, creditable to seller; "Fumigating Ozonic Ribbon," cheapest, sweetest, perfect disinfectant. All above guaranteed genuine formulæ, are profitable, and may be recommended with confidence. Price 1*s.* 1*d.* each, 3 for 2*s.* 6*d.*, 25 for 1*l.*, post free, with full particulars for making, &c., by T. Brooks, Chemist, Louth, Lincs. N.B.—Detailed list sent post free.

Tic mixture, many years' proved efficacy as a certain cure for tooth-ache, neuralgic tic, and all nerve pains; tic tincture equal in value to the mixture, applied on cotton wool to the hollow tooth the relief is instantaneous; 1*s.* 6*d.* each, 2*s.* 6*d.* the two. W. Arthur, 31 Thomas Street, Cheetham Hill, Manchester.

Important to Chemists.—Fifteen gennine recipes for 2*s.* 6*d.*, including "Balsamic Cough Elixir," a ruby-red compound; "Glycerine Jelly," "Glycerine Cream," for the skin; "Foaming Dentifrice," "Quinine and Iron Tonic," "Taraxacnm and Podophyllin," "Gonorrhœa Mixture," "Tannin Gargle," "Kid-reviver," "Digestive Powder," "Bandoline," "Golden Eye-wash," "Rheumatic Embrocation," with two others; guaranteed to make splendid preparations. T. Snowball, 22 New Road, Newcastle-on-Tyne.

Fragrant foaming dentifrice (like "Floriline"); marking ink, *sine* silver (aniline), writing executed defies chemicals; effervescing fruit saline (resembles Eno's); magio neuralgic drops (never-failing remedy); quinine and iron tonic (resembles Pepper's); lime-jnice and glycerine (inseparable, white as milk); blue-black ink (non-corrosive, *sine* iron or galls); cherry tooth paste (never ferments; like Gosnel's); brilliantine (inseparable, like Rimmel's); pill-coating, (pearly white, no mucilage or mastic nssd); glycerine jelly (perfectly transparent); crimson marking-ink; hair-restorer (colourless, no deposit, *sine* silver); aromatic vinegar; toilet vinegar (as Rimmel's); platspowder (like Stevens' "Silicon"); Oleum Flavum Conc., for pomades (colour stable); soluble essence ginger (like Hay's); corn solvent, clear (not acid); liquor copaibæ comp. c. buchu et matico (mixes clear with water); gonorrhœa paste, excellent (Dr. Ricord's); taraxacum and podophyllin (resembles Pepper's); with many others; send stamp for list, stating wants. The toilet preparations are identical with those prepared by a wholesale West-end firm; others equally good; all inexpensive to make; 5*s.* each (five for 1*l.*). Readers are cautioned against cheap and worthless imitations. I was first to advertise formulæ in this journal. "Analyst," care of Mr. Warnes 6 Rochester Square, N.W. (Note change of address.)

Miscellaneous.

Fifty-inch bicycle, good condition, 6*l.*, a bargain. Miller, 47 Clarendon Square, N.W.

Large number of lantern-slides for sale. Apply, Piggott, Chemist, Huddersfield.

One yard poro-plastic splint, cost over 2*l.*, for 1*l.* R. S. Stanley, Southwell.

Watts' works. 6 vols., well bound; an English lever gold watch, cost 15*l.* 15*s.* 227/38.

Slate cistern, 30 gallons, 15*s.*; water-motor, 9*l.* 30/228.

A large quantity of honeycomb sponge, suitable for retailing at 9*d.* to 1*s.* each; sample will be sent and price quoted. Apply, Walker, Little Brighton, Birkenhead.

One gross each of pint and half-pint white stoneware ink-bottles, with lips, never been used; what offers? Pallister, Chemist, Laxey, Isle of Man.

Fourteen lbs. transparent glycerine soap, in bars; ½ doz. St. Raphael tonic wine; ferri sulph. commercial; resin, good, with sundries. E. J. Owles, 97 Fore Street, Ipswich.

Three gross 3 and 4 oz. stone black-varnish bottles, 6*s.* gross; a 25-gallon vinegar cask, 5*s.*; 2 gross large blacking-bottles, 8*s.* gross; Winchester of ol. origanum, 2*s.* lb.; Winchester of ol. of citronelle, 1½*d.* oz.; 2 Winchesters oil of mirban, 10*d.* per lb., or offers. J. R. Lund, Chemist, Bradford.

In consequence of retirement from business.—Teats, white, small, 4*s.* 6*d.*; medium, 8*s.*; large, 11*s.*; black, small, 8*s.*; medium, 11*s.*; large, 12*s.* 6*d.*; tubing, white, 5*s.*, black, 10*s.* per lb.; syringes, glass, ½-oz., 1*s.* 7*d.*; 1 oz., 2*s.* 6*d.*; corn-plasters, white felt, thin, 1*s.* 2*d.*, thick, 1*s.* 9*d.* gross; bunion-plasters, thin, 2*s.* 9*d.*, thick, 4*s.* gross; glass tubes for feeders, 1*s.* 2*d.* gross. J. Ashton, 75 Crayford Road, Holloway.

WANTED.

I want three show-carboys, about 4 gallons each, and stands. 227/26.

Squire's "Companion," latest edit'on; state price, carriage paid. Wiggin, Ipswich.

Two 10-gallon carboys, pear-shape, cheap. Royse, Stockport.

A three-grain pill-machine for twenty-four; must be in good order. Paterson, 133 Govan Road, Glasgow.

A counter-case, good condition, as Maw's A 55, about 7 ft. long. Claypole, York Town, Surrey.

Latest editions Bentley's "Botany," Pereira's "Selecta," Squire's "Companion," cheap for cash. Shera, Horncastle.

Recent editions, cheap, Attfield's "Chemistry," Wills' "Materia Medica," Wills' "Practical Analysis," Pereira's "Selecta." Burgess, Taibach, South Wales.

Chemist's street-lamp on pillar, dental show-case with specimens, dental chair, tools and gas-apparatus, large mortar. Chandler, 22 Battersea Rise.

Squire's "Companion," Beasley's "Receipt," Beasley's "Formulary," wanted. State lowest price to Cooper, 1 Princess Road, Kilburn, N.W.

Old gold, silver, and dental metals; assay value returned by registered post if offer not accepted. Entwisle, 39 Shaw Street, Liverpool.

Pharmaceutical Journal, Nos. 341, 345, 357, 446; vols. 1 and 2, and first half of vol. 3., third series. Miller, 47 Clarendon Square, N.W.

Addresses and Information Wanted.

Address of M. Dupré & Fils, makers of a French electric snuff for neuralgia. 206/21.

Bringloe, C. W., surgeon, late of Southport and Malvern. Wanted by E. J. Kitson, Worcester.

Caution to Chemists.—Address wanted of S. C. Fisher, age about 22, who left his situation on Tuesday morning, September 30, without any warning, in the absence of the Principal; supposed to be with friends in Northampton. Any information will oblige to Raynor & Co., Chemists, 5 The Pavement, Leytonstone, E.

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CONTINUED FROM PAGE 40.

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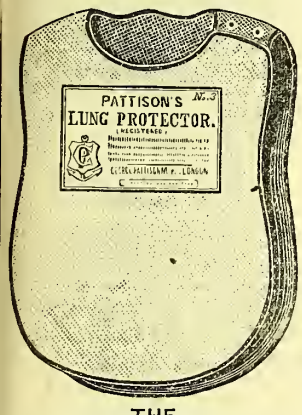
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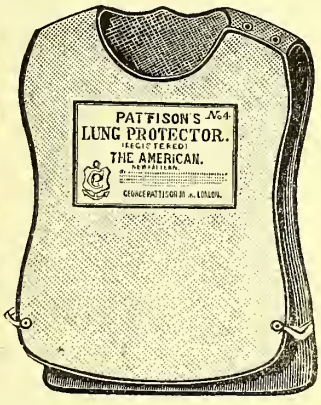
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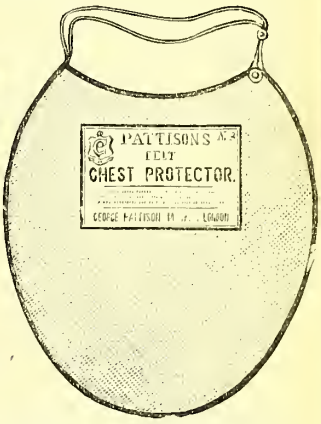
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PRICES:

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Original Pattern, Seven sizes	14/-	18/-	26/-	34/-	42/-	52/-	60/-	per doz.
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FELT CHEST PROTECTORS.

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Prices...	4/-	6/-	8/-	10/-	12/-	16/-	20/-	24/-	per doz.

All in Scarlet and White, and made in same Wool as the "Lung Protector."

Terms: All Wholesale Houses either allow a large Discount for Cash, or quote the goods at Reduced Net Cash prices.

FELT CHEST PROTECTORS, C QUALITY, single and double, each in five sizes.
At lower prices than above, and equal to **BEST** of other makers, but are NOT recommended.

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CHISWICK SOAP COMPANY,

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SOFT SOAP

MANUFACTURERS, WHOLESALE AND EXPORT.

"IMPERIAL" SOFT SOAP	Manufactured specially for Domestic use, and packed in 1, 2, 3, 3½, 4, and 7 lb. Tins.
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By their method of purifying, the fats are not chemically altered, but simply divested of all particles tending to decomposition, they are consequently available for the most delicate preparations.

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For Cleaning Gold, Silver, and Plated Goods.

Since its introduction as a substitute for the ordinary Rouge, a quarter of a century ago, the sale has amazingly increased both at home and abroad. A trial is only needed to prove its superiority over other plate powders in use. Sold in Boxes at 1s. and 2s.; Tins, 6s. 6 Pont Street, Belgrave Square, and 48 Belgrave Road, London, S.W.



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LEECHES!

Warranted Healthy, Wholesale and for Exportation, Direct from Marshes.

FITCH & NOTTINGHAM, Leech Breeders,

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All Orders by Post receive immediate attention.

BY HER MAJESTY'S ROYAL LETTERS PATENT.

PROFESSOR TUSON'S

DISINFECTANTS,

DEODORISERS & ANTISEPTICS.

LIQUID AND POWDER.

These Preparations are the Invention of Prof. TUSON, of the Chemical Laboratory, Royal Veterinary College, Camden Town.

THE LIQUID is a solution of one of the most powerful *non-volatile* disinfectants impregnated with the BEST gaseous disinfectant.

THE POWDER, when exposed to the air, but more rapidly when damped with water, or when applied to litter, manure, or other moist substances, evolves the same gaseous disinfectant as the liquid.

Both preparations fix ammonia, prevent putrefaction and the spread of infectious diseases, DESTROY (not merely mask) bad smells, and LEAVE NO SMELL of their own. These combined qualities render them superior to, and unlike, every other disinfectant hitherto invented.

THEY WILL BE FOUND INVALUABLE in Houses infected with Cholera, Fever, Small-pox, Measles, &c.; in Hospitals, Dissecting Rooms, Ships, Factories, Stables, Cow-sheds, Dairies, Larders, Piggeries, Slaughter-houses, Kennels, Urinals, Privies, Cesspools, Water-closets, Sewers, Drains, Manure Heaps, &c.

Note.—For use in Water-Closets, Sinks, Drains, and the like, preference should be given to the Liquid, as the choking of soil-pipes, &c., by solid Disinfectants is thereby entirely avoided.

SOLD BY ALL CHEMISTS.

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Waterproof, Airtight, Neat, Clean, and convenient for use.

Odourless, and retains its strength unimpaired, and will keep for years in any climate.



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24-lb. BOXES, containing		24 1-lb. Packages	6/6
Ditto	ditto	48 ½-lb. ditto	7/0
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Also in 1 cwt. and ½-cwt. Cases, to meet the requirements of large buyers and the Export Trade.

A Liberal Discount allowed on all Orders of 5 Cases or 10 Boxes and upwards. Special Quotations for Contract or Large Orders.

Sample Box or Case can be had from any London or Country Wholesale Druggists. All Goods Delivered Free in London.

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WHITE FELT

CORN AND BUNION PLASTERS.

INVENTED AND ESTABLISHED BY

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AND FAVOURABLY KNOWN ALL OVER THE GLOBE.

PRICES—

Arnicated White Felt Corn Plasters.		Arnicated White Felt Bunion Plasters.	
Thin, 12 in box (round 6*d.* boxes) ...	2/4 per doz. boxes.	Small Thin, 6 in box (round 6*d.* boxes) ...	2/4 per doz. boxes.
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N.B.—Please see that YOUNG'S Goods are supplied, as there are many worthless Imitations.

Manufactory, 72 Clerkenwell Road, London, E.C. (late of CARTHUSIAN STREET).

The Greatest Corn Remedy of the Age.

PAINLESS CORN & WART PAINT (Registered).

USED AND RECOMMENDED BY THE FACULTY.

This valuable preparation totally removes hard and soft Corns and Warts, leaving the part healthy and free from pain.

The proprietors have received from all parts the most wonderful testimonies to the miraculous cures effected by the paint, which is known and recognised everywhere as

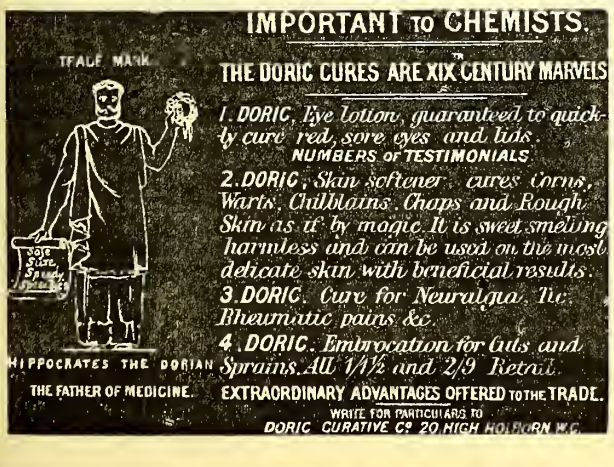
"THE PERFECT CURE."

In cases containing a bottle of paint, camel's-hair pencil, and adhesive plaster, price 7½*d.* Full directions for use are enclosed with each bottle. Sample by post, 7½*d.* PREPARED ONLY BY

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LONDON DEPOT: 1 AND 2 AUSTRALIAN AVENUE, E.C.
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CORN & BUNION EXTERMINATOR.

REGISTERED.

This Instrument effects a painless cure for Corns, Bunions, Warts Hard and Scaly Formations, &c.

Wholesale terms upon application, Price, 1/ each; post free, 13 stamps

Testimonials can be seen, or operations performed in peculiar and difficult cases, at C. & J. P. GARDNER'S, Chiropodists, Inventors, and Manufacturers, Kendal. Also Makers of Metallic Ferret Muzzles.

Sample sent, post free, nine stamps. Agents wanted abroad.

Wholesale Agents who stock above—Messrs. BAROLAY & SON, MAW SON & THOMPSON, London; GOODALL, BACKHOUSE & CO., Leeds.

FINE HEALTHY CHILDREN!

GELDART'S GALACTAGOGUE

Or MILK PRODUCER,

IN BOTTLES, 2*s.* 9*d.*, 4*s.* 6*d.* and 11*s.*

THIS preparation is the greatest boon ever invented for Mothers and Wet Nurses. Its use produces a copious flow of rich nourishing milk, which thoroughly satisfies the infant, prevents rickets, promotes easy dentition, and lays the foundation of a strong, healthy constitution. It also prevents debility in the mother whilst suckling, and is a capital remedy for acidity, flatulence, indigestion, &c. If taken during pregnancy it promotes perfect gestation, and effectively prevents decay of the teeth, so common to mothers during this period.

Commands a Ready Sale wherever introduced.
Will keep good in any climate.

Chemists supplied with Handbills through any of the Wholesale Houses.

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Proprietor of the Celebrated PARISIAN STARCH GLAZE, and Sole Consignee for the United Kingdom of the world-renowned BRAND'S AMERICAN BITTERS.

PAINTS. VARNISHES. WOOD STAINS.

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READY-MIXED PAINTS,

In 1, 2, 4, 7 and 14 lb. Tins.

These goods are packed in the "Patent Self-opening Tins," which require no cutting. Tins painted to correspond with contents, and enclosed in printed wrappers.

28 USEFUL and SALEABLE TINTS,

Guaranteed to Dry Well.

HANDSOME SHOW BOARDS

(Framed and Glazed), with Specimens of the Colours, supplied.

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(Every description).

JAPANS.
BRUNSWICK AND BERLIN BLACKS.
TEREBINE.
FRENCH POLISH.
WHITE AND BROWN HARD SPIRIT VARNISHES.
KNOTTING. LACQUERS.

DRYERS and GROUND COLOURS } of the finest quality.

DRY COLOURS, all Prices and Shades.

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"SPECIAL."

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SATINWOOD,
ROSEWOOD, EBONY.

Draught, or packed in 6*d.* bottles (8 oz.), capsuled and wrappered. Also in powder.

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With specimens of the Stained Woods, supplied.

The demand for these Stains is steadily increasing. They possess great richness and truth of colour, and

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WHITE LEAD, PAINT, COLOUR AND VARNISH WORKS,

HUMBER BANK, ROPERY ST., AND JACKSON ST., HULL.

PAINTS MIXED READY FOR USE, ALL COLOURS,

Best Quality, in 1, 2, 4, 7, 14, and 28 lb. Tins, 34s. per cwt., carriage paid.

SANDERSON'S IMPROVED DAMP-RESISTER, for the effectual cure of damp walls.
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PINK PRIMING PAINT, EXTRA STRONG PATENT DRYERS, PUTTY, &c., &c.

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Highest Award, Philadelphia, 1876. Gold Medal, Berlin, 1877. Highest Award and only Medal, Paris Exhibition, 1878. Highest Award, Melbourne, 1881. Highest Award and only Medal, Frankfort, 1881. Highest Award and only Medal, Amsterdam, 1883.

Put on by Sponge attached to Wire and Cork in each Bottle. *No Polishing Brush required.* Dries in a few minutes. Can be used by any lady *without soiling her fingers.*

The "Satin Polish" is the most Elegant Article of the kind ever produced.

Ladies' Shoes, which have become Red and Rough by wearing, are restored to their Original Colour and Lustre, and *will not soil the skirts when wet.* Tarnished Patent Leather is improved by it.

For Travelling Bags, Trunks, Harness, Carriage Tops, &c., it is unequalled. It will not harden the Leather nor crack. It is not a spirit varnish. **In Cartons, 4s. 6d. per dozen; 52s. per gross. Packed in Sawdust, 3s. 9d. per doz.; 43s. per gross. 2½ %.**

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Is the best in the Market, and it can be used with good effect on Ornaments, Picture Frames, Iron and Fancy Work generally, as well as for Boots and Shoes. In Cartons, 7s. per dozen. 2½ %.

SOLD BY ALL WHOLESALE CHEMISTS AND DRUGGISTS' SUNDRIESMEN.

Factories: BOSTON; MONTREAL; 18 & 20 Norman's Buildings, ST. LUKE'S, LONDON.

INDEX TO ADVERTISEMENTS,

See pages 39-40.

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Prepared expressly for Oakey's Patent India-Rubber Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines. Sold in Packets, 3d. each; and Tins, with perforated Tops to prevent waste, 6d., 1s., 2s. 6d., and 4s. each.

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In 1d., 2d., and 4d. Blocks, and 1s. Boxes.

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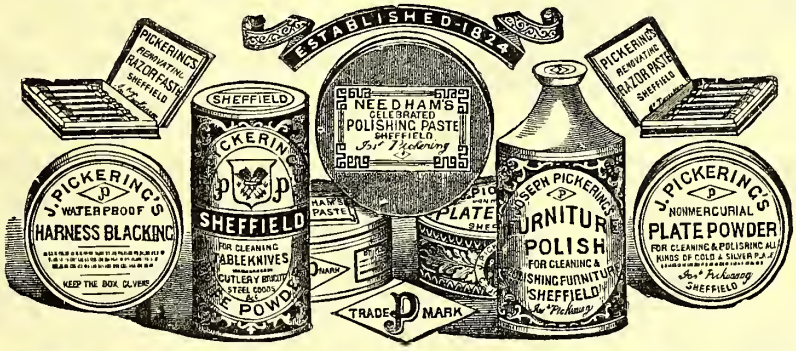
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SPIRITUS RECTIFICATUS P.B
SPIRITS OF WINE
THE BEST ENGLISH GRAIN SPIRIT
CHEMICALLY PURE
FREE FROM FUSEL OIL
5 gallons 60 over proof at 20/1 net cash
Special Quotation for Quantity
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METHYLATED SPIRIT MAKERS.
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FROM RATCLIFF.
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AT LOWEST PRICES OF THE DAY.
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Hard and Soft Stearine Pitch	Palm Oil Pitch	Brimstone, Ashes, &c.
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For Tinctures, Essences, Perfumes, &c.
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Beg to call the attention of CHEMISTS AND DRUGGISTS to their undermentioned prices of Pure Spirits of Wine :—

Strength per cent.	Specific gravity.	Price per gall.
63 over proof ..	0·8238 ..	20/10
60 ,, ,, ..	0·8298 ..	20/4
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Terms: *Cash on Delivery.* *Jars to be returned or paid for.*
For Exportation, Cask included, 4/, 60 o.p., F.C.B.
Orders from the country must be accompanied by a remittance, including the price of the Jars, which are charged as follows :—2 galls. 2/6 ; 4 galls. 4/0 ; 5 galls. 5/0 ; 6 galls. 6/0. When the Empties are returned, the money will be repaid.
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Specialities for Varnishes and Wood Stains.
THE FINEST AND CHEAPEST
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CONTAINING ALL THE OIL. A strictly pure article, all other seeds, dirt, &c., being entirely removed. It is lightly crushed from a special kind of large bold seed, which gives a larger proportion of meal to husk than the ordinary commercial Linseeds. Price 18/6 per cwt., bag free. Special quotations for 5 cwts. and upwards.

NOTE.—*This quality can be obtained from Messrs. Barclay & Sons, 95 Farringdon St., London, in 1-cwt. bags at above price; smaller lots 20/ cwt.*

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Contains all the Oil, and is crushed from sound good Linseed, 17/6 per cwt., bags free.

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Contains all the Oil, and is crushed from sound good Linseed, 16/6 per cwt., bags free.

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The best for feeding purposes; merely requires scalding to make a stiff jelly, and when introduced at once creates a large demand; 17/ per cwt., bags free.

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WITHOUT OIL. Best quality only, 11/6 cwt., bags free.

All ground in our own mills, and always sent out freshly crushed.
Special Quotations for Quantity.
Above can be had with the Husk wholly or partially sifted out at an advanced price. Correspondence on this subject is invited.
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This preparation is a mixture, in definite proportions, of Howard's Chlorate of Potash, English Tartaric Acid, Bicarbonate of Soda, and a little Cane Sugar. The proportion of these ingredients is fixed, and always remains the same. This, and the pleasant excess of acid, characterises Evans' Saline. A dry mobile powder, dissolving perfectly.

Bottles with Chemists' own name, or in bulk.

For further particulars as to price, &c., see price list.

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DELECTABLE JUJUBES, VOICE JUJUBES, AND GLYCERINE PASTILLES

Put up in 4-lb. Decorated Tins with Glass Lids, *TINS FREE*, are now being inquired for by buyers from all parts of the world. They are not surpassed in quality by any maker, and give entire satisfaction.

MEDICATED and HIGH-CLASS LOZENGES, of every kind.
Sent out in 2-lb. or 4lb. Bottles, Bottles Free; or in Tins, from 10 lb. upwards.

LIME JUICE TABLETS. PURE MALT TABLETS.

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GIBSON'S ORIGINAL CHLORODYNE LOZENGES.

PENNY SUGAR WORM CAKES, suitable for either *children* or *adults.* Have an immense sale, keep in any climate, and please everybody. Manufactured by

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GENUINE OIL OF MUSTARD SEED

Is strongly recommended as a safe and effectual remedy in cases of Rheumatism, Gout, Rheumatic Gout, Sciatica, Lumbago, Headache, Pains in the Stomach, Spasms, Bruises, Chilblains, &c. *Retail in Bottles, 1s. each.*

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Drugs of all descriptions.

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LIME JUICE CORDIAL

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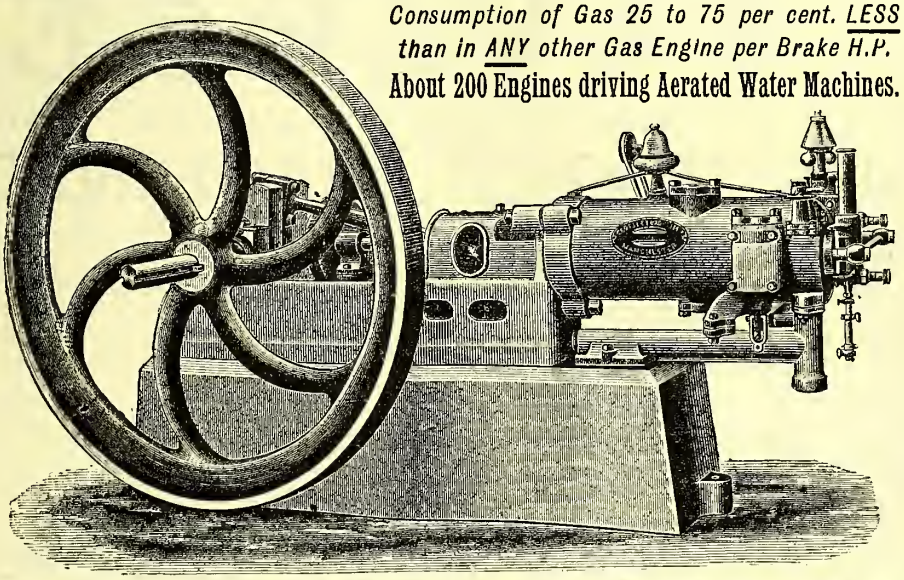
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13 SILVER MEDALS. 16 GOLD MEDALS.

Consumption of Gas 25 to 75 per cent. LESS than in ANY other Gas Engine per Brake H.P.

About 200 Engines driving Aerated Water Machines.



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Requiring very little ground space.

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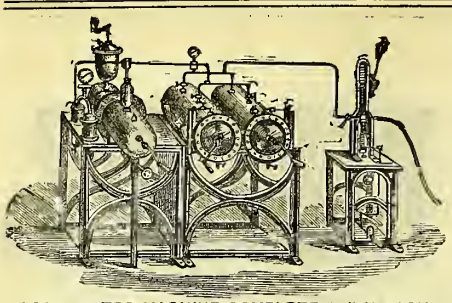
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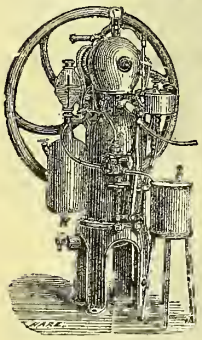
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The "MEDIUM" requires no skilled labour, and can be worked by hand or steam power.
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MAKING MACHINERY

AND ALL APPLIANCES FOR THE TRADE

BY

BARNETT & FOSTER

INVENTORS & MANUFACTURERS,

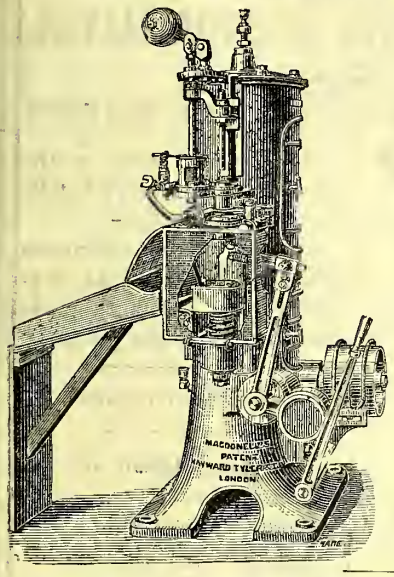
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The Catalogue above referred to comprises every requirement for the Chemist in the way of Manufacturing and Dispensing of all kinds of Aerated Waters.

HAYWARD TYLER & CO.

The ONLY GOLD MEDAL, Calcutta, 1884.
HIGHEST AWARD, Melbourne, 1881. GOLD MEDAL, Paris, 1878.



IMPORTANT NOTICE.

We beg to call the special attention of the Mineral Water Trade to the fact that WE ARE NOT this Season Exhibiting at the Brewers' Show, but we have arranged to have the following Specialities in motion between the hours of 9 and 5 during the above Exhibition at OUR SHOW ROOMS here, and all persons connected with the Trade are respectfully invited to visit them :—

SODA WATER MACHINERY, with IMPROVED SATURATOR.
MACDONELL'S PATENT STEAM POWER SYRUPING, FILLING, and CORKING MACHINE.
HOWARD'S PATENT WIRING MACHINE.
PATENT STEAM FILLING MACHINE, for Barrett's Patent Valve Screw Stoppers, and Hand-filling Arrangement for same.
MAY-DAVIS' PATENT BOTTLING MACHINE, specially for Aërated Wines and Beer.
HILLS' PATENT BOTTLE WASHING TANK.
STEAM AND COOLING PAN ARRANGEMENT FOR SYRUP.
HAYWARD TYLER & CO.'S IMPROVED STEAM POWER WHITING MIXERS. And other important Specialities.

Attention is also called to their Stand No. 1,158 in Western Gallery at the International Health Exhibition.

84, 85 WHITECROSS STREET, LONDON.

VALLET'S PATENT IMPROVED STOPPERED BOTTLES,



Fig. 2.

For Mineral Waters and Gaseous Liquids,

Are now used by upwards of 1000 *Soda Water Manufacturers in the United Kingdom.*

PRICES (Per Gross).—Patent Stopper, as per Fig. 1, 4/6; ditto, as Fig. 6, 4/6; ditto, as per Fig. 7, 4/6; Patent Stoppered Bottles, ready for use; ditto Half Bottles, ditto; Patent Unstoppered Bottles; ditto Half Bottles; Fig. 9, Boxwood Bottle Openers, polished, 3/6; ditto, fitted with rubbers, 10/6; Common Wood Bottle Openers, 5/6; ditto, fitted with rubbers, 7/6; Fig. 10, New Bottle Opener, 6/-.

ROYALTY FREE.



Fig. 6.



Fig. 1.



Fig. 7.

It will be seen by reference to figs. 6 and 7 that I now form a button or nut under the base of my Stopper for the purpose of easily extracting same from the Bottle without spoiling or removing the indiarubber from the body of the Stopper. This is readily accomplished by the use of a suitable tool made to fit on the nut; the Stopper being grasped is withdrawn from the bottle in a second, without injury to the Stopper.

Therefore, it will be a great saving to Mineral Water Manufacturers, as by the old way of extracting the Stoppers from the Bottle, when necessary, very often the indiarubber is spoiled, and the time it takes by this slow process is worth more than the Bottle itself; so that in many instances Bottles with spoiled or dirty Stoppers are put aside as worthless stock.

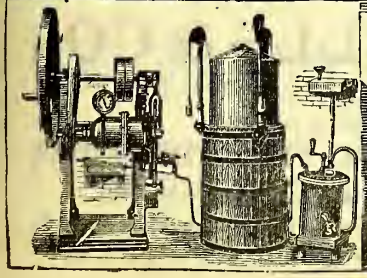
Figs. 1 and 6 Stoppers, when invoiced without Bottles, are ready fitted with the rubber washer on, and are easily inserted into the Bottle by the simple pressure of the thumb, the washer at the same time folding in the hollow part of the stem, when passing into the Bottle. They are the only Stoppers which require no tool to fit into the Bottle; and when a Bottle breaks, which seldom occurs, the Stoppers are always fitted with washer and ready to be inserted in a new Bottle. Therefore they are the most durable and inexpensive Stoppers in the Trade.

Sample and Particulars sent on application to

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SODA WATER MACHINERY

AND ALL ACCESSORIES, FOR THE TRADE BY



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AERATED WATER ENGINEERS & MANUFACTURING CHEMISTS.

ICE MAKING MACHINERY A SPECIALITY.

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APPARATUS GAZOSELTZ CONTINUAL,

Without Gasometer, with automatic distribution of the acid. **The only ones** which work under a regular pressure as long as the operation lasts.



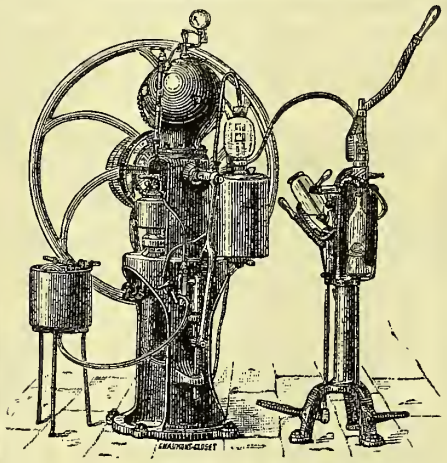
Syphons, Short lever.

Price—

20/6 per dozen.

All the fittings manufactured by ourselves, and of the best workmanship.

PURE ENGLISH TIN, FIRST QUALITY.



New system, based on the principle of Mariotte's bottle.

Automatic and continuous production of the gas, permitting the indefinite preservation of the gas purifiers.

No gasometer required.

No manipulation of the acid tap required.

Safety. All risk of explosions avoided.

Complete Plant, Model No. 1,

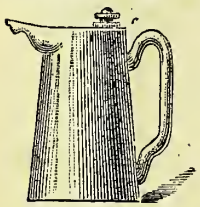
Showing the Generator with Combination filler (for bottles and syphons), Price £48. Production 1,200 syphons or bottles daily.

PROSPECTUS FREE ON APPLICATION.

L'HOTE'S APPARATUS

(Patented S.G.D.G.)

FOR SELTZER WATER & AERATED BEVERAGES.



1/7th of actual size.

This Apparatus is made entirely in PORCELAIN. No Repairs necessary. No Explosions possible. The cheapest of Table Apparatus.

PRICES :—

Two Bottle Apparatus .. 5fr. 75c. (4/7½)

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Powders for the Two-bottle Apparatus (Ten charges) 1fr. 20c (1/)

Powders for the Three-bottle Apparatus (Ten charges) 1fr. 80c. (1/6)

Discount to Pharmacists and Druggists.

F. PAQUET, Manufacturer,

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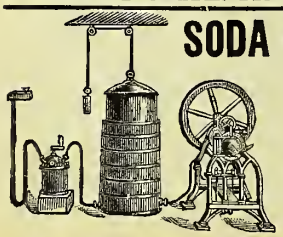
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ESTABLISHED 1873.

The Pioneer Journal and Representative Organ of the Mineral and Aërated Water Trades.

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EASY TERMS.

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Manufactory:

BATH CITY BRASS FOUNDRY AND IRONWORKS,

BECK STREET.

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THE PUREST IN ENGLAND.

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SODA, POTASH, LITHIA, AND SELTZER WATERS, LEMONADE, AND AROMATIC GINGER ALE.

4-dozen and 6-dozen Cases Carriage Paid.

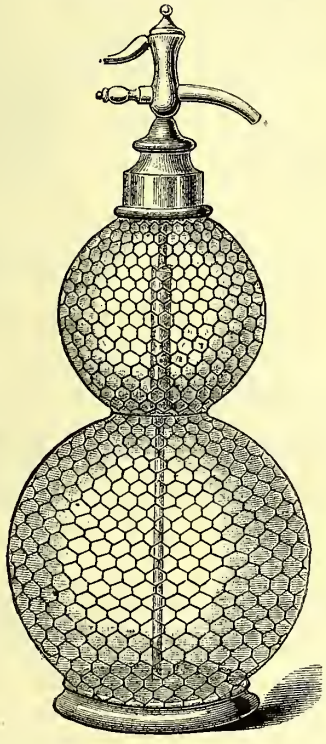
Prices and Pamphlet on application. Agents appointed.

THE

IDRIS SELTZOGENE.

Unequalled in Style and Finish.

CANE OR WIRE COVERED.



For Price List and Terms,

APPLY TO THE

IDRIS

MANUFACTURING COMPANY,

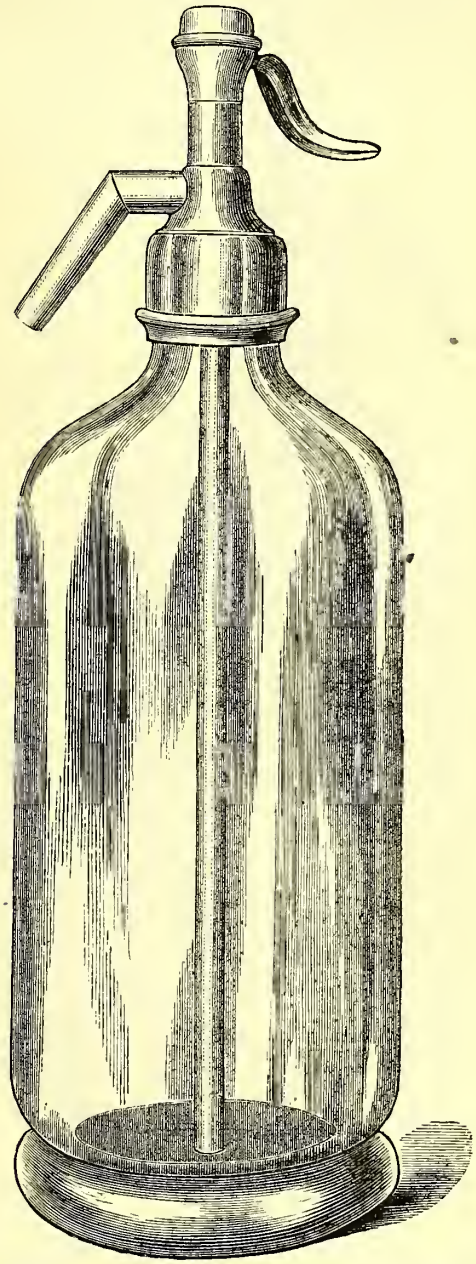
ASCHAM STREET,

LONDON, N.W.

THE

IDRIS SYPHON

Is the best in the Market, combining the elegance of the French with the strength and superiority of English workmanship.



Intending purchasers should apply for samples and prices, before placing their orders, to the

IDRIS MANUFACTURING CO.,

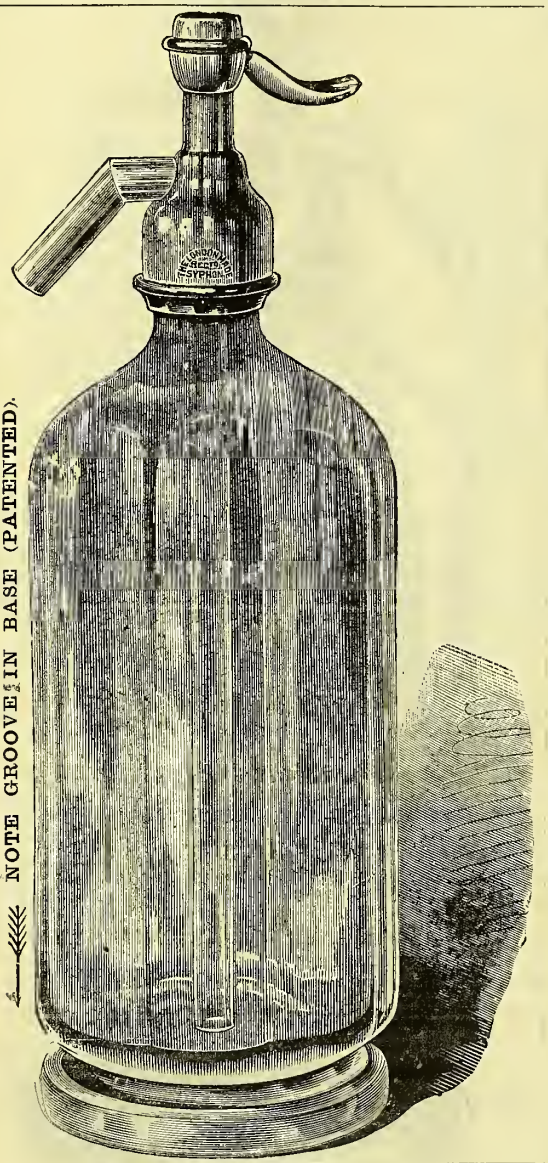
Ascham Street, London, N.W.

Tops guaranteed to be made of Best English Tin and free from Lead.

BARNETT & FOSTER,

"Niagara Works," 26T Eagle Wharf Rd., London, N.

Having completed extensive alterations and additions in our premises and plant, we are now enabled to execute orders of any magnitude for our celebrated "LONDON MADE" SYPHON BOTTLE (which has earned such high reputation for being the simplest, safest, and most elegant syphon in the market) with punctuality and dispatch, at the same time guaranteeing the best workmanship and materials. Special attention is called to the patent "Octagonal" vase, which adds greatly to the appearance of the syphon without very greatly increasing the cost, and which is fitted at the base with groove so that drips from the spout run down the sides and are prevented from soiling the table.



PRICES (White, Blue, Green, or Amber):—

	By the gross, per doz.	Less than 1 gross, per doz.
Quart size	£1 2 0 ...	£1 4 0
Pint size	1 1 0 ...	1 3 0
Half-pint, Pear shape	1 0 0 ...	1 2 0
Octagonal vases, any colour	1 4 0 ...	1 6 0

Tops nickel-plated, from 5s. 6d. per doz. extra. Tops silver-plated and burnished, from 9s. per doz. extra. *Special Prices and Terms to large Buyers.*

NOTE.—Syphons made with our patent foot for collecting excess of liquid dripping from the spout after use are supplied at no extra charge, and will be found of great utility in preventing stains, &c., upon table linen. This is a desideratum long been wanting, particularly for private house use. Send for sample; forwarded upon receipt of 2s.

INTERNATIONAL HEALTH EXHIBITION, 1884,

SOUTH KENSINGTON, LONDON.

Visitors to the above Exhibition are specially invited to examine our splendid exhibit in the Western Gallery, Stand No. 1,156, where our syphons can be seen, and a complete mineral water manufactory with all latest improvements is in actual daily operation.

SIX PRIZE MEDALS AWARDED—TWO GOLD.
For very superior quality, make, and special excellence in finish.

THE BRITISH SYPHON MANUFACTURING CO.

EUGSTER & KOERTGEN, PROPRIETORS.

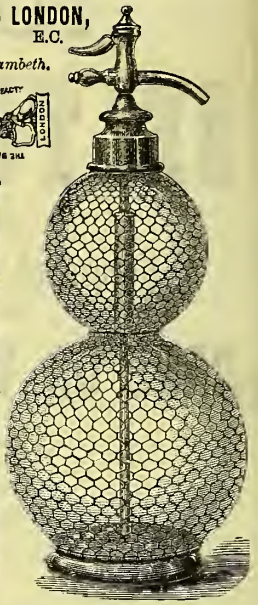
2 GRESHAM BUILDINGS, LONDON, E.C.

Works:
Wickham St., Lambeth.



Specimen of Trade Mark engraved on the Syphon Bottles by the acid process at 1½d. and 2d. per bottle extra.
Name stamped on the metal tops free for orders of one gross.

IMPORTANT.—In ordering our Seltzogenes through Agents, distinctly state that you require the "Lion and Shield" brand, and see that you get it, as often others inferior are substituted.
All our apparatus are stamped thus—
GUARANTEED PERFECT, and of first-class workmanship.



SYPHONS.

Short Lever.. .. .. 22/6 per doz. net.
Long .. .. .. 24/0 „
White, Blue, Amber, or Green Bottles.
Octagonal-shaped Bottles, 1/6 per dozen extra.
Silver-plated tops, 9/- per doz. extra.

SELTZOGENES.

3 pint wire covered, 13/-; cane covd. 13/6
5 „ „ 18/-; „ 19/-
8 „ „ 30/- „ „
Silver-plated Wire or Top, 5/- extra.
Drop Cups, Measures, Fittings for Repairs, &c. Liberal discount.

Special Quotation for Large Quantities. Each Seltzogene and Syphon thoroughly tested before sent out. All metal warranted free from lead.

MUMBY'S MINERAL WATERS

Are Perfectly Pure and of First-class Quality.

CHARLES MUMBY & CO.

Have had the honour of supplying their Mineral Waters to

HER MAJESTY THE QUEEN,

And the following members of the ROYAL FAMILY:

H.R.H. The Prince of Wales, K.G.
H.R.H. The Duke of Edinburgh, K.G.
H.R.H. The Duke of Connaught, K.G.
H.R.H. The Late Prince Leopold, Duke of Albany, K.G.
H.R.H. Prince Christian, K.G., and
H.I.H. The Crown Prince of Germany.

IMPORTANT TESTIMONIAL.

H.M.S. "Serapis," Portsmouth, 25th May, 1876.

Messrs. C. Mumby & Co.,

Gentlemen,—The Soda Water supplied by you for the use of H.R.H. The PRINCE OF WALES on board H.M.S. "Serapis" was of excellent quality, kept in good condition, and gave great satisfaction to His Royal Highness, his suite, and the officers of the ship.

(Signed) THOMAS BRADBRIDGE, Paymaster.
T. W. SCADDEN, Chief Steward.

These Celebrated Waters can be supplied in Syphons with Silver-plated Tops.

GOODS CARRIAGE PAID. PRICES ON APPLICATION.

34 THE HARD, PORTSMOUTH.

CANTRELL & COCHRANE'S

CELEBRATED

AROMATIC GINGER ALE,

SPARKLING MONTSERRAT,

"CLUB SODA," AND

MINERAL WATERS,

As supplied to Her Majesty's Imperial Houses of Parliament,

Have been Awarded TWENTY-THREE GOLD AND PRIZE MEDALS at the various International Exhibitions.

Goods for Export are specially prepared, and are guaranteed to keep in any climate.

PRICES AND TERMS ON APPLICATION TO—

CANTRELL & COCHRANE,

BELFAST AND DUBLIN.

T. & F. J. TAYLOR'S

TRADE N & P MARK.

AËRATED WATERS,

Newport Pagnel.

ESTABLISHED 1835.

SODA, POTASH, SELTZER, AËRATED (without Alkali), and LITHIA WATERS, LEMONADE AND GINGER ALE.

Each Bottle is protected by a Label bearing the Signature of the Firm.

Purity and Excellence of the Water certified by Analysis by Professor ATTFIELD, Ph.D., F.C.S.

"ABSOLUTELY PURE."
SEE ANALYSIS, sent post free on application.

TRADE MARK. CYMRYAM BYTH

REGISTERED.

ELLIS'S RUTHIN WATERS.

ESTABLISHED 1825.

"CRYSTAL SPRINGS." Renowned for their purity for HALF-A-CENTURY. Situated on the premises, and exclusively the private property of the Firm.

Soda, Potass, Seltzer, Lemonade, Aromatic Ginger Ale. For Gout: Lithia Water, and Lithia and Potass Water. Corks branded—"R. ELLIS & SON, RUTHIN," and every Label is registered, and bears their Name and Trade Mark. *Sold Everywhere, and Wholesale of*

R. ELLIS & SON, Ruthin, NORTH WALES,

Manufacturers to the Royal Family.

London Agents: W. BEST & SONS, Henrietta St., Cavendish Square.

THE MONTSERRAT COMPANY, LIMITED. LIME-FRUIT PRESERVATIONS. TRADE MARK.

"MONTSERRAT"

PURE

LIME-FRUIT JUICE.

THE MONTSERRAT COMPANY, LIMITED. LIME-FRUIT PRESERVATIONS. TRADE MARK.

150,000 GALLONS IMPORTED IN 1884!

LIMETTA, OR PURE LIME JUICE CORDIAL,
AROMATIC, CLOVE, STRAWBERRY, RASPBERRY, SARSAPARILLA,
PINEAPPLE, JARGONELLE, PEPPERMINT, QUININE.

NOTICE TO THE TRADE.

Special attention is called to the above, which now meet with a steady demand.

Special Terms for 1 gross upwards. Showcards and Bills supplied on application.

Sole Consignees—

EVANS, SONS & CO., LIVERPOOL.

EVANS, LESCHER & WEBB, London.

H. SUGDEN EVANS & CO., Montreal, Canada.

Agents for the United States: HOLWAY, WRIGHT & RICH, New York, Boston, Baltimore, and Chicago.

HONOURABLE MENTION,
International Food Exhibition, Agricultural Hall, London, October, 1880.

HAY'S
SOLUBLE ESSENCE
OF
JAMAICA GINGER

(Guaranteed Pure and Free from Capsicum).

Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d.

Highly adapted for the manufacture of *Transparent Aërated Waters*, and for all *Dietetic*, *Medicinal*, and *Pharmaceutical* purposes

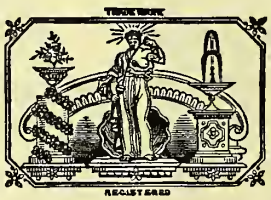
MEDICAL AND OTHER OPINIONS ON HAY'S GINGER CHAMPAGNE.

Made from Hay's Ginger Champagne Essence.

"The FINE AROMA OF GINGER which Mr. Hay has caught with remarkable success is an excellent SUBSTITUTE FOR ALCOHOL, as it gives what old port wine-drinkers used to call 'BODY,' and to many people, besides professed tee-totallers, an occasional change at least from the ROYAL FRENCH BEVERAGE to its less costly, but equally sparkling and MORE REFRESHING ENGLISH RIVAL, is a welcome treat." *The Chemist and Druggist.*

"AN excellent and most agreeable beverage." *The Lancet.*

"Made by MR. HAY, of Hull, with his well-known Soluble Essence of Jamaica Ginger, takes rank as a pure, wholesome, stimulating, and non-alcoholic beverage."—*British Medical Journal.*



Medical and other Opinions on the Ginger Beer made from HAY'S Soluble Essence.

"An excellent effervescing drink."—*The Lancet.*

"Preferable to some wines we have tasted under the name of champagne."—*Medical Press.*

"Has the purest Jamaica Ginger aroma, and ought to attain great popularity."—*The Chemist and Druggist.*

The aroma is fine, the flavour delicate, and the pungency admirable, and we should be glad to see the Essence introduced into this country.

Carbonated Drinks. New York, U.S.A.

HAY'S Ginger Ale.

"It pours out with as fine a 'head' as any glass of ale, and possesses all the fine aromatic flavour of the pure ginger. It is a beverage which is sure to win favour wherever introduced."—*The Chemist and Druggist.*

THE COMPOUND FORTIFIED ESSENCE

Specially adapted for the Manufacture of the

FINEST GINGER ALE.

This Essence, which is an addition of **Vanilla, Lemon**, and **other flavours** to the above, **is** strongly recommended for the manufacture of the **finest Ginger Beer** and **Ginger Ale**. It imparts, with the **exquisite Ginger Aroma** of the above-mentioned Essence, a peculiarly fine **fruity flavour** combined with the fullest amount of **fragrance** and **pungency**.

Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards, 5s.

HAY'S GINGER CHAMPAGNE ESSENCE

FOR THE MANUFACTURE OF GINGER CHAMPAGNE.

This Essence is a combination of the **Finest Flavours**, and imparts with the **Ginger**, a most **exquisite Aroma.**

Trade Price, 8s. per lb.; 12 lbs. and upwards, 7s. 6d.

HAY'S GINGER ALE ESSENCE,

HIGHLY CONCENTRATED.

This Essence is a complete Bouquet of the Finest Ginger, Lemon, and other flavours in a highly concentrated state. **Ginger Beer** and **Ginger Ale** made with **this Essence** will possess an amount of **Aroma, Flavour**, and **Quality** that have hitherto been without precedent, and that will be sure to command a large sale.

THE COST IN MANUFACTURE IS ABOUT ONE FARTHING PER DOZEN BOTTLES.

Trade Price, 9s. per lb.; 12 lbs. and upwards, 8s. 6d.

HAY'S GINGER ALE EXTRACT

SUPPLIES PUNGENCY, AROMA, COLOURING, AND FLAVOURING.

This Extract is strongly recommended for the manufacture of **Ginger Ale,** to which it imparts an unusually **Fine Flavour** and **Great Brilliancy,** at a cost of a little under 1*d.* per dozen bottles.

Trade Price, 4s. 6d. per lb.; 12 lbs. and upwards, 4s.

PREPARED BY

W. HAY, Manufacturing Chemist, BEVERLEY ROAD, HULL.

Agents—Messrs. HEARON, SQUIRE & FRANCIS, Wholesale Druggists,
5 COLEMAN STREET, LONDON, E.C.

W. HAY *CAUTIONS THE TRADE* **against the use of those spurious so-called SOLUBLE ESSENCES which, besides having NO GINGER AROMA, are FLAVOURLESS, RANK, and DISAGREEABLE, and are little more than TINCTURES OF CAPSICUM.**

AËRATED AND MINERAL WATERS ASSOCIATION, LTD.

THE CHEMISTS'

THE ONLY MEDAL, LONDON 1861.

THE HIGHEST MEDAL, BRADFORD, 1882.

LONDON	BRISTOL	HARROGATE
45 Gifford St, Caledonian Rd., N.	*Sun Factory, Victoria Road.*	*Montpellier Works, Starbeck.*

This being the ONLY Company that supplies *exclusively* to *Hospitals and Chemists* Manufactured Minera Waters of the highest class and of specified formula, the Directors beg to hand you at foot prices for same in Bottles and Syphons, and trust to be favoured with a sample order.

	Bottles, per doz.	*Syphons.*
Carbonated Water	at **1/0**	**1/6**
Soda ,, 5 Grains to half-pint	,, **1/0**	**1/6**
Soda ,, B.P., 15 ,, ,, ...	,, **1/0**	**1/6**
Potash ,, 5 ,, ,, ...	,, **1/0**	**1/6**
Potash ,, B.P., 15 ,, ,, ...	,, **1/0**	**1/6**
Seltzer ,, ...	,, **1/0**	**2/0**
Lemonade	,, **1/3**	
Lime Juice	,, **1/3**	
Ginger Ale	,, **1/3**	**2 6**
Ginger Beer, Glass	,, **1 3**	
Lithia, B.P., 5 Grains to half-pint	,, **1/9**	
Iron and Quinine Water	,, **1/9**	
Mineral Acid	,, **1/9**	

Bottles, at per doz., **1/6**. **Syphons** at **24/**. **Cases,** 3 doz., **3/6**; 4 doz., **4/6**; 6 doz., **5/6**. **Syphon Cases, 2/6**

Sparkling Rubine and **Sparkling Limine,** pints, at **3/2** per doz, bottles included. Six doz. at **3/** and 30 doz. at **2/10**. Special terms for 5 gross and upwards bottled goods. **Natural Mineral Water** supplied at lowest prices. For further particulars apply to

H. T. BUTLER, Secretary.

JEWSBURY & BROWN'S

MANCHESTER

MINERAL WATERS,

PURE SODA, SELTZER, POTASH, LITHIA, &c., LEMONADE, GINGER ALE, AND QUININE TONIC.

Prepared and Bottled specially for Export, and warranted to keep well.

A CERTIFICATE OF MERIT, for superiority of quality, was awarded to Jewsbury & Brown at the Exhibition of Sanitary Appliances, at Owens College, Manchester, on the occasion of the Meeting of the British Medical Association, August, 1877.

A CERTIFICATE OF MERIT awarded by the British Sanitary Institute of Great Britain, after a deferred PRACTICAL TRIAL AND EXAMINATION, July 4th, 1879.

Manufactured with the utmost care and by improved machinery, these productions are recommended for **purity and excellence of quality** by many leading members of the Medical Profession, and have for many years had a preference by the public; the flavour of the **Lemonade and Ginger Ale** being procured from the **fresh Fruit and Finest Jamaica Ginger**, they may be relied upon as furnishing delicious and satisfactory beverages, either for general use or specially for invalids.

The **Soda Water** is absolutely free from any metallic impregnation, and being by improved machinery highly charged with Carbonic Acid Gas, and each bottle containing a definite and unvarying proportion of **Pure Carbonate of Soda**, J. & B. have every confidence in inviting a trial from those who have not already patronised them.

The **Seltzer, Potash, and Lithia Waters** are prepared with the utmost exactitude and the purest ingredients.

The **New Quinine Tonic** furnishes a pleasant form for the administration of a most valuable restorative, and is refreshing and agreeable.

Ginger Ale (Aromatic) of superior quality, and strongly recommended as a Non-Alcoholic and warm stimulant beverage.

N.B.—Every Bottle is protected by a distinctive Label, with Name and Trade Mark, and each Cork is branded.

Counter Bills and Analytical Reports, with Agents' Names and Addresses, supplied when requested.

JEWSBURY & BROWN, 44 Downing Street, 3 Grosvenor Street, and 113 Market Street, MANCHESTER.

HAY'S
SOLUBLE ESSENCE
OF
MESSINA LEMONS,
FOR THE PRODUCTION OF
THE FINEST LEMONADE.

Added in the proportion of one fluid ounce to each gallon of syrup, the soluble essence imparts the most delicious flavour of the Lemon. —*The Chemist's Journal.*



The Essence mixes well with water, and has a delicate flavour. The Lemonade made therewith has a far more delicate flavour than that generally met with.— *The Chemist and Druggist.*

Trade Price, 8/6 per lb.; 12 lbs. and upwards, 8/.

PREPARED BY
W. HAY, Manufacturing Chemist,
BEVERLEY ROAD, HULL.

HAY'S
GINGER CHAMPAGNE
CAN BE OBTAINED FROM THE SOLE AGENTS,
INGRAM & ROYLE,
119 QUEEN VICTORIA STREET, LONDON, E.C.,
AND BATH BRIDGE, BRISTOL.
Retail Price, in Half Champagne Bottles, 5/6 per doz.

This SPARKLING, EXHILARATING, and REFRESHING DRINK, while being far more agreeable in bouquet and flavour than the FINEST CHAMPAGNE WINE, is, at the same time, unlike it, FREE from ALCOHOL.

It is strongly recommended both for Juveniles and Adults, &c., as the most Wholesome Stimulating Beverage that has hitherto been introduced, and should be in every household during all seasons of the year.



Samaritan Free Hospital, Lower Seymour Street, Portman Square, London, W.

Dear Sir,—I have tried your Ginger Champagne, which I find to be excellent, and I look upon it as a step in the right direction towards meeting a long-felt want. Our Senior Physician, Dr. Henry Savage, has also tried it, and is much pleased with it. We ought long ago to have had such a beverage, and I believe that a great deal of drinking would thus have been prevented. I wish your effort much success.

I am, dear Sir, yours faithfully,
GEORGE SCUDAMORE, Secretary.

An excellent and most agreeable beverage.—*The Lancet.*

Made by Mr. Hay, of Hull, with his well-known SOLUBLE ESSENCE OF JAMAICA GINGER, takes rank as a PURE, WHOLESOME, STIMULATING, and NON-ALCOHOLIC beverage.—*British Medical Journal.*

One of the most delicate and wholesome drinks in the market.—*Medical Press.*

SOLE MANUFACTURER—
W. HAY. Chemist. &c., 4 Regent's Terrace. HULL.

NEW AND IMPORTANT DISCOVERY.
GINGER ALE
FROM PURE JAMAICA GINGER.

THE ROYAL YORKSHIRE GINGER ALE, from Pure Jamaica Ginger. Is Non-Intoxicating.



ABSOLUTELY PURE.—See Analysis by Drs. J. H. HASSALL, M.D., and OTTO HEHNER, F.C.S.

The difficulty of using Ginger in the Manufacture of "Ginger Ale," and at the same time having a CLEAR and SPARKLING DRINK, has, after much labour and expense, been thoroughly overcome by
Messrs. HARSTON & CO., of LEEDS.

FOUND AT LAST!
WHAT?
BY ROYAL LETTERS PATENT.

A Temperance Beverage brewed entirely from Malt and Hops and absolutely free from Alcohol.

SALUS

BY ROYAL LETTERS PATENT.

Has a pleasant flavour. Is a good appetizer, the best Hops only being used. Is refreshing and stimulating, without the injurious effects of Alcohol.

In proof of this, see Dr. O. BOSTOCK HILL'S (County Analyst, &c.) report upon each label.

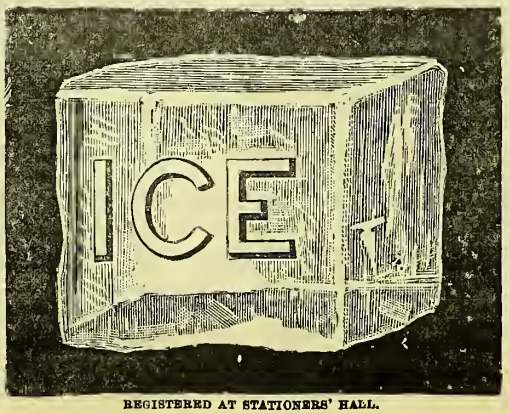
Sample orders of 6 doz. Champagne Pints sent, carriage paid to any Railway Station in England, on receipt of 28*s.*; 10*s.* allowed for case and bottles when returned to the
SALUS MANUFACTURING COMPANY,
Gladstone Road, Birmingham.

FOREIGN
MINERAL WATERS.

FREDERICKSHALL (5 Cases, 6*d.* per Case less), 28/ Case, 30 bot.; 39/ Case, 60 ½-bot.
APOLLINARIS WATER, 25/- Hpr., 50 bts.
39/- Hpr., 100 ½-bts.
"Carriage paid." Hampers free.
5 per cent. discount if 20 Hampers.
HUNYADI JANOS (10 Cases. 3/- and 5/- less), 30/- Case, 25 bts.; 50/- Case, 50 ½-bts.

ELTZER	...	...	...	11/- Hpr.,	25 bts.
"	...	...	...	15/- Hpr.,	50 ½-bts.
PULLNA	...	...	...	18/- Case,	20 bts.
"	...	...	...	30/- Case,	50 ½-bts.
VICHY	...	...	...	31/- ,,	50 bts.
"	...	...	...	27/- ,,	50 ½-bts.
CARLSBAD	...	...	...	37/- ,,	50 bts.
KISSENGEN	...	...	...	42/6 ,,	50 ,,
SCHWALLBACH	...	...	...	27/6 ,,	50 ,,
HOMBURG	...	...	...	40/- ,,	50 ,,
WILDUNGEN	...	...	...	43/- ,,	50 ,,

CARLSBADS ALTS, ½-Bots., 20/- per doz.; ½-Bots., 40/- per doz.; Bot., 80/- per doz.



REGISTERED AT STATIONERS' HALL.

NORWAY BLOCK ICE
FROM FINEST LAKES IN CHRISTIANIA.

Professor Frankland's report with analysis:—"The Ice is exceedingly pure, and contains less foreign matter than any water with which I am acquainted in this country."

Original Blocks

(2 to 3 cwt. each)	2s. 0d. per cwt.
1 cwt. to 2 cwt. ..	2s. 6d. per cwt.
½ cwt. to 1 cwt. ..	½d. per lb.
Under 1 cwt.	1d. per lb.

Packing free. Utmost promptitude in despatch.

W. B. HARRISON
Importer of Ice and Mineral Waters,
6 BRIDGE ST., SUNDERLAND.

Æsculap BITTER WATER COMPANY, LIMITED.

38 SNOW HILL, HOLBORN VIADUCT, LONDON, E.C.

SIR,—

IN order to keep before the Medical and Pharmaceutical Professions the latest authentic researches with regard to Natural Mineral Waters, I beg to call your attention to the following references which have appeared since the issue of the pamphlet on "Æsculap."

In Dr. Sydney Ringer's "HANDBOOK OF THERAPEUTICS," 10th edition, 1883, p. 220, is the following:—

"An excellent way to administer some of these Salts (Sulphate of Soda and Magnesia) is in the form of . . .

"PERHAPS, BEST OF ALL, ÆSCULAP WATER,

"in doses varying from a wine-glassful to half a tumblerful or more."

In the "MINERAL WATERS OF EUROPE," 1883, by Professor Tichborne and Dr. Prosser James, ÆSCULAP BITTER WATER is placed at the head of Class I. of Strong Purgatives (p. 214), as it is—

"The chief of the 'Ofen' Group . . . A mixed purgative, with well-marked antacid reactions . . .

"three times as rich in antacids . . . contains nearly three times as much Chloride of Sodium . . .

"not so unpleasant to take . . . and is free from organic impurity."

Great weight is attached to the modifying effects of the Antacids and Chloride of Sodium, as—

"These two Salts are admirably suited to reinforce the Sulphates, and the Mineral Waters thus

"constituted are remarkable for their efficacy as well as for their mildness."

I shall be glad to forward you a supply of circulars, descriptive pamphlets, and copies of testimonials, show-cards, &c., free of charge, on application.

I remain, Sir, yours obediently,

E. SAMSON, Manager.

A. LLOYD & SONS,

BUSH LANE, CANNON STREET, LONDON, E.C.,

PACKING-CASE MAKERS, TIN-PLATE WORKERS,

STEAM LITHOGRAPHERS & GENERAL PRINTERS, & Manufacturers of IRON SHOW TABLETS,

DECORATED AND PLAIN TIN CANISTERS

For Packing Tea, Coffee, Confectionery, Mustard, Spices, and Drugs;

METALLIC CASKS AND OIL DRUMS AND BOTTLES.

Boxes, Trays, Crates, and Cases of all kinds for Aerated-water Manufacturers.

Also Manufacturers of all kinds of PACKAGES in WOOD and TIN, suitable for sending any articles by the PARCELS POST.

ESTIMATES FORWARDED ON APPLICATION.



KING'S EFFERVESCING CITRATE OF MAGNESIA

Is the BEST PREPARATION ever introduced for the use of EMIGRANTS, TRAVELLERS, AND INHABITANTS OF WARM OR TROPICAL CLIMATES.

This Citrate has been patronised by Royalty, by Her Majesty's Diplomatic Agents Abroad, and was awarded a Prize Medal at the Exhibition of 1851.

NUMBERS of the MOST EMINENT PHYSICIANS AND SURGEONS in London and throughout the kingdom use **KING'S MAGNESIA** for THEMSELVES and FAMILIES, and have given certificates testifying that it is THE BEST AND MOST AGREEABLE APERIENT EVER INTRODUCED, and that in ALL CASES OF SICKNESS, HEADACHE, LASSITUDE, ACIDITY or IRRITABILITY of the STOMACH, CONSTIPATION, &c., &c., it can be used with the GREATEST SAFETY and BENEFIT, and as a COOLING DRAUGHT in ALL cases of FEVER it has NO EQUAL.

TESTIMONIALS have also been received from CAPTAINS OF VESSELS AND OTHERS who have made voyages to the BRAZILS and other TROPICAL PARTS, and have ESCAPED THE YELLOW AND OTHER FEVERS, while DAILY EXPOSED to the INFECTION; and attribute their EXEMPTION (when others have succumbed) to the PREVENTIVE effects of **KING'S EFFERVESCENT CITRATE OF MAGNESIA**; and they RECOMMEND that the Citrate should be taken by EVERY EUROPEAN wishing to VISIT or RESIDE IN SAFETY in TROPICAL or FEVER-PREVALENT CLIMATES.

A small teaspoonful of the Citrate in a tumbler of cold water makes an AGREEABLE COOLING EFFERVESCING BEVERAGE.

Sold only in Glass-stoppered Bottles by Chemists and Druggists everywhere, and by the Sole Manufacturers and Proprietors—

BATES & CO., 1 REGENT SQUARE, LONDON, W.C., ENGLAND.

Be sure to get **KING'S** EFFERVESCENT CITRATE OF MAGNESIA, which will give entire satisfaction.

W. A. ROSS & CO.,

OF BELFAST,

MANUFACTURERS OF THE

ROYAL BELFAST GINGER ALE

AERATED WATERS & CORDIALS,

Have been awarded TWO GOLD MEDALS and ONE SILVER MEDAL at the CALCUTTA EXHIBITION, 1883-4, in addition to all previous honours received.

LA BOURBOULE,

AN EMINENTLY RESTORATIVE MINERAL WATER.

Contains Chloride of Soda, Bicarbonates, Arsenics (28 millig. of arseniate of soda per litre).

Dose: Half a glass to three glasses per day before or during meals.

A Regenerator for Weakly Children, and for Debility in Adults; also in Anæmia, Fatty Degeneration, Affections of the Skin and Respiratory Organs, and Intermittent Fevers. Employed as a drink and in gargles for Bronchitis and Sore Throat, and as a drink and lotion in Ringworm, Chaps, and Redness of the Skin.

Anglican Divine service on Sundays.

London: GALLAIS & CO., 27 Margaret Street, W. INGRAM & ROYLE, 119 Queen Victoria Street, E.C. WILLIAM BETTS & SONS, 22 Henrietta Street, Cavendish Square. Liverpool: EVANS, SONS & CO.

DANGERFIELD'S IGNITING MATCH CASE.



U. S. & Foreign Pats.

FRANCIS S. DANGERFIELD, Proprietor and Sole Manufacturer of the **celebrated** SELF-IGNITING MATCH CASES. *Pronounced the* ACME of PERFECTION. The **fortunate** possessor has only to push the slide, when a match presents **itself lighted.** Your clothes, walls, and furniture need **no longer** be injured or defaced. **No** Gent can afford to be without one. **Sent** by **Mail** or **Express prepaid** to any part of the World, on receipt of price (P.O. Order or N.Y. Draft): **SOLID** BONANZA SILVER, 3s. each; 1 doz., 16s. 8d., **SOLID** NICKEL SILVER, 2s. each; 1 doz., 12s. 6d. **SOLID** OREIDE OF GOLD, 1s. 6d. each; 1 doz., 10s. 6d.; X X TIN, 1s. each; 1 doz., 8s. *A liberal discount on larger quantities.* AUBURN, NEW YORK, U.S.A.

GEORGE OATES & CO., MESSINA, SICILY,

MANUFACTURERS OF

ESSENTIAL OILS.

PRIZE MEDAL, MELBOURNE 1880.

References: MESSRS. BARING BROS. & CO., LONDON.

FRATELL DE PASQUALE & CO.,

LARGO MUNIZIONE, MESSINA, SICILY,

MANUFACTURERS, ESTABLISHED ON THE VERY GROWTH PLACE, FOR THE FINEST

ESSENTIAL OILS

Of Lemon, Bergamot, Sweet and Bitter Orange. Recently Awarded at the Exhibitions of

CALTANISETTA, 1879—A Gold Medal and 200 Liras for Invention of Machinery to the use of their Manufactory, and Silver Medal for Excellence of Produce.

MILAN, 1881—A Bronze Medal for Excellence of Produce.

MELBOURNE, 1881—A First Order of Merit for Excellence of Produce.

MESSINA, 1882—A Gold Medal and 150 Liras for an ample set of Machines to the use of their Manufactory, and a Bronze Medal for Excellence of Produce.

A first trial order is quite sufficient to remain convinced of the Excellence of our Essences.

Samples and all particulars may be had from our Wholesale Agents—

SAML. LAMBERT & CO., 137 Fenchurch Street, LONDON.

CLAUDE RAYNAUD & CO.,

MANUFACTURERS AND DISTILLERS OF

POMADE, EXTRACTS, OIL, ROSE AND ORANGE FLOWER WATER, ETC.

Messrs. CLAUDE RAYNAUD & CO. (Grasse) beg to inform purchasers of the following prices for their new Rose Water and Orange Flower Water:—

ROSE WATER.								ORANGE FLOWER WATER.							
Carboys of 24 litres, triple	...	...	32 fcs or	£1	5	7		Carboys of 24 litres, triple	...	...	34 fcs. or	£1	7	2
„ 24 „ quadruple	...	...	36 „	1	8	9		„ 24 „ quadruple	...	...	38 „	1	10	5
Coppers of 24 „ triple	...	...	35 „	1	8	0		Coppers of 24 „ triple	...	...	37 „	1	9	8
„ 24 „ quadruple	...	...	39 „	1	11	2		„ 24 „ quadruple	...	...	44 „	1	12	9

Also special extra quality Extracts in 2½ oz. bottles, for export and home consumption, in 6 dozen cases, assorted—20/ per doz. in bond; 23/ per doz. duty paid. New Pomades and Essential Oils now ready.

OIL LAVENDER.—MONT BLANC is now in perfection, and Messrs. C. R. & Co. solicit a trial of this which they highly recommend.

Sole Agent—G. V. DE LUCA, 6 & 7 Long Lane, E.C. Depot—NEWBERY & SONS, 1 King Edward St., E.C.

W. J. BUSH & CO.,

Distillers and Importers of

ESSENTIAL OILS AND FRUIT ESSENCES,

SOLUBLE ESSENCES FOR AËRATED WATER

AND CORDIAL MANUFACTURERS,

Extra Super Lemon, which is double the strength of ordinary commercial qualities.

W. J. B. & CO. caution the Trade against the so-called soluble Essences now so frequently offered for sale, which are nothing more than mere tinctures, and, although offered at lower prices, cost five or six times as much in use, whilst imparting a strong medicated flavour.

The importance of our invention of Soluble Essences is clearly shown by the numerous imitators and copyers that have sprung up, and we must inform the TRADE that ours are the only GENUINE ORIGINAL SOLUBLE ESSENCES.

FRENCH CREAM GUM EXTRACT,

PROTECTED BY ROYAL LETTERS PATENT,

For producing a head of Creamy Richness upon all kinds of Syrups, Aerated Waters, Beers, Ales, Cider, Champagne, &c., 2s. 6d. per pound.

W. J. BUSH & CO. regret having to Caution the Trade against spurious imitations of this article, most of which being mere rubbish.

W. J. BUSH & CO.'S

ENGLISH DRAWN ESSENTIAL OILS.

OL. AMYGD. ESSENT. ANG.
„ AMYGD. „ (SINE ACID. PRUSSIC.)
„ ANETHI ANG.
„ CARUI ANG.
„ CARYOPH. ANG.
„ CINNAM. VER. ANG.

OL. CUBEBÆ ANG.
„ COPAIBÆ ANG.
„ MYRISTICÆ ANG.
„ MENTH. PIP. MITCHAM RECT.
„ SANTAL FLAV. ANG.

OL. LIMONIS (W. J. B. & CO.'S SPECIALITY).

20-23 ARTILLERY LANE, BISHOPSGATE, LONDON, E.

F. GREEN & CO.,

PHOENIX

DRUG, SPICE, AND SEED MILLS,

BIRMINGHAM,

HAVE for many years given careful attention to the selection of Seeds, Spices, Roots, &c., used in the manufacture of Cattle Condiments and Veterinary practice generally, and, having special machinery for separating all extraneous matter before grinding, and careful dressing afterwards, they can guarantee purity and full strength.

SPECIALITIES.

Pure Crushed Linseed.

Finest quality from Screened Seed. No oil extracted.

Price, in 1 cwt. and 2 cwt. bags (free), 17*s.* cwt.

Powdered Aniseeds	35/	cwt.	Powdered Gentian Root, (finest)	40/	cwt.
,, Carraway Seed	40/	,,	,, Columba ,,	50/	,,
,, Coriander Seed	34/	,,	,, Galangal ,,	48/	,,
,, Fœnugreek Seed	13/	,,	,, Liquorice ,, (finest)	36/	,,
,, ,, ,, bright	16/	,,	,, Turmeric ,,	28/	,,
,, Cummin Seed	42/	,,	,, Grains of Paradise	35/	,,
,, Charcoal, Vegetable	8/6	,,	,, Ginger, fine Cochin	70/	,,
,, ,, Willow	20/	,,	,, Cloves	90/	,,
,, Antimony Black	28/	,,	,, Cayenne	100/	,,

PACKAGES, NEW SACKS, OR PATENT AIR-TIGHT CASKS COST PRICE, NOT RETURNABLE.

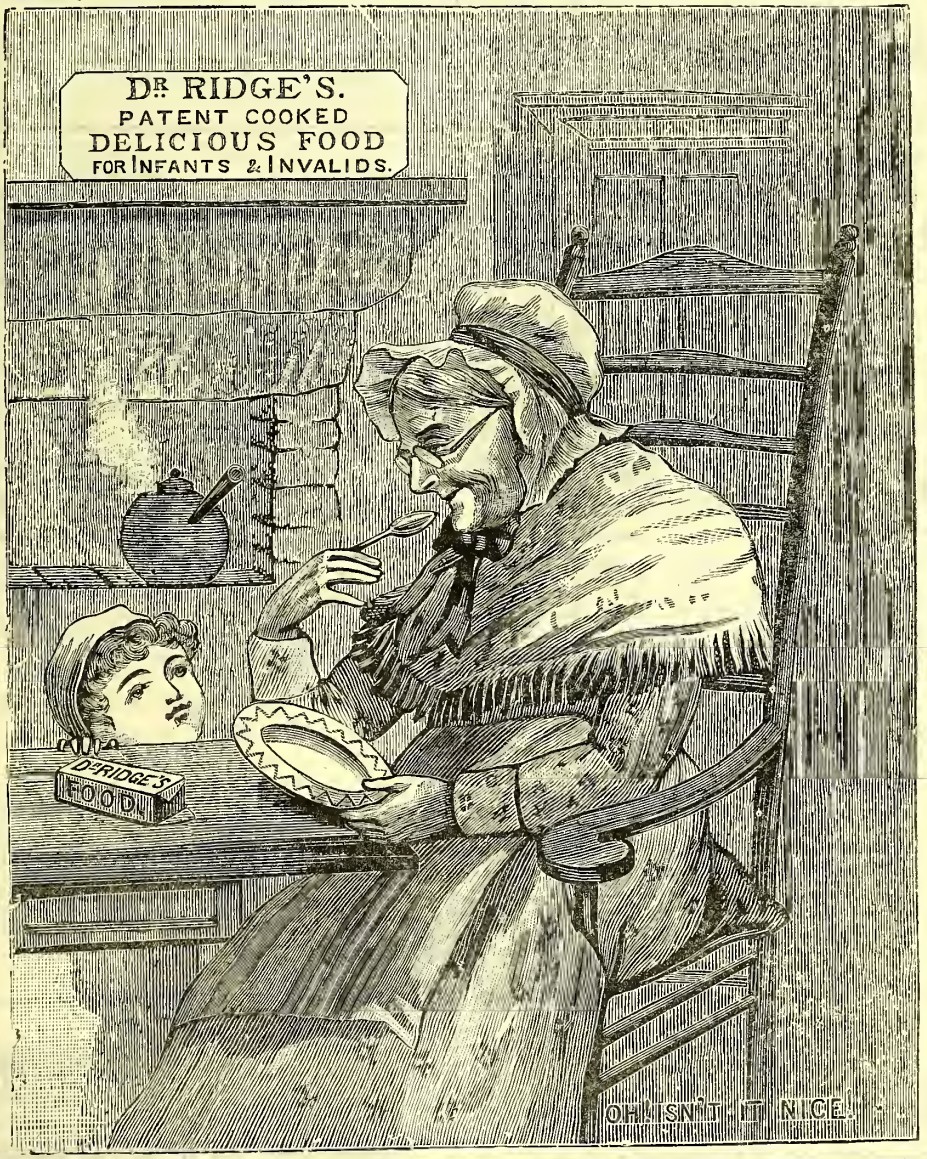
TERMS—Nett cash with order or Trade references.

Drugs, Spices, Seeds, &c., ground for the Trade.

"THE IMPORTANCE OF FARINACEOUS FOOD SUBSTANCES CANNOT BE OVERSTATED.

The staff of life as we receive it from the baker's hands may be in a very good and easily digested form for the healthy and strong; but custom has decreed that we must have our bread as white as it can possibly be *made*. We do not inquire how such a result is brought about, and many, no doubt, do not even know that pure white is not the natural colour of wheat ground into flour. The ordinary form of farinaceous food does not agree with every one, and we have all sorts of bread made and sent out, as cottage, household, home-made, digestive, whole-meal bread, brown bread, &c., the only difference discoverable, save between the white and the brown, being in the shape of the loaves. Even these distinctions failed to be satisfactory to all persons, and specially-prepared meals, about 1845, began to attract considerable attention in Paris and elsewhere, as being the very best diet for infants and young children. These articles were advertised as a certain cure for dyspepsia, constipation, &c. With the substance itself there was no fault to be found, and some of them met with considerable success. The only objection was the mystery in which they were shrouded; but this was dispelled by an edict of the French Government, which caused a commission of inquiry to be made into all secret remedies and nostrums. Chevalier, one of the professors of the Ecole de Pharmacie, analysed two of the most noted articles. One was found to be nothing but the pure meal of the lentil (*Ervum lens*), the other ordinary treacle, such as is sold in grocers' shops—both excellent in their way, but quite out of the reach of any but the wealthy at the prices at which they were sold.

"The impetus thus given to the trade in what was supposed to be specially-prepared farinaceous food was not, however, stopped by this exposure. and preparations of meal and flour from beans, peas, and cereals of every description became popular. But the necessity of a farinaceous food which should have a maximum of nourishment with a minimum of bulk, and which could be immediately prepared and partaken of by persons of weak digestion, infants, and invalids, was still felt, and to provide for such a want among his own patients, the well-known Dr. Ridge turned his attention to wheat. The knowledge that this cereal contains in a greater degree all the constituents for keeping the human body in health and strength was the reason for choosing before any other this particular grain. We have not space here to detail the rapid popularity which this famous food obtained. Nor can we particularise on the most interesting processes through which the food passes at the present manufactory; but our readers may form some idea of the enormous sale of Dr. Ridge's Food when we inform them that at the present time upwards of 4,000 tins and packets are consumed daily, and the sale is still rapidly increasing. Of all known subjects of alimentation milk alone is acknowledged to contain every element needful for the support of vigorous life; but pure milk cannot always be obtained, and when it is procured is invariably dear; therefore it became essential to find a cheap, handy, and health-giving substitute that could be used with equal efficiency either with or without milk. And, judging by the great success which has attended the efforts of Dr. Ridge, this has been most satisfactorily accomplished by the production of Dr. Ridge's Patent (Cooked) Food."—*Christian World.*



KREOCHYLE BARFF AND WIRE. LIQUID MEAT.

FOOD AND STIMULANT FOR INVALIDS AND INFANTS.

To be obtained of all Wholesale Chemists, and

Sole Manufacturers and Patentees: THE KREOCHYLE COMPANY, BIRKBECK ROAD, LEYTONSTONE, E.

Prices—Retail, 5s per pint; 2s 9d. per half pint; 1s. 6d. per quarter pint.

LEUBE-ROSENTHAL'S IMPROVED MEAT SOLUTION.

Prepared by R. STUETZ, Chemist, Successor to Dr. MIRUS, Jena, Germany.

This carefully prepared Meat Solution contains the real stimulating and nourishing constituents of the best quality of beef, freed of fat and sinews. *It is exceedingly appetising, and easily digested even by the weakest stomach.* It can be taken either neat or diluted with water. It is totally devoid of that obnoxious, nauseous taste so common to most of the meat preparations. It will keep good in hermetically closed tins for any length of time.

Retail Price per Tin, containing ½ lb., 2/; Wholesale, per dozen, 17/ net.

Wholesale Depôt: H. POTHS & CO, 4 Sugar Loaf Court, Leadenhall Street, LONDON, E.C.

SPECIAL NOTICE & CAUTION.

BRAND & CO.

The Original Manufacturers of Essence of Beef (green label under wrapper), and other Specialities for Invalids, have

NOT REMOVED

From their SOLE ADDRESS, No. 11 LITTLE STANHOPE STREET, MAYFAIR, W, and caution the trade to

BEWARE of IMITATIONS.



HARVEY'S SAUCE

For FISH, STEAKS, GAME. &c.

CAUTION.

Each Bottle of this celebrated Sauce, prepared from the *Original Recipe*, bears the well-known Label, signed—

Elizabeth Lazenby

This Label is protected by PERPETUAL INJUNCTION in Chancery of the 9th July, 1858, and without it none can be GENUINE.

Prepared only by E. LAZENBY & SON, LONDON.

And sold Retail by Grocers, Oilmen, Italian Warehousemen, &c., throughout the Kingdom.

MUSTARD.

FINCH, RICKMAN & CO.'S

Genuine Qualities

Are made from the finest mustard seeds only. Their compounds, as manufactured for upwards of a century, are guaranteed free from all ingredients imparting spurious heat, and are therefore equally suitable for both table and medical purposes.

6 BROKEN WHARF, UPPER THAMES STREET, LONDON.



CASH PRICE
20s. for 12½ GALLONS.
CASKS FREE.

School of Cookery, Crystal Palace, S.E.
January, 1883.

MR. PETER TYRER,
SIR,—I have been using the "Borough" Ketchup, and am very pleased with it. Its flavour is excellent, both for all kinds of Savoury dishes and Soups; and I most certainly should advise every cook and housekeeper to use it, FOR I HAVE NEVER YET MET ITS EQUAL. MARIAN, SMITHARD,
Lecturess on Cookery.

MANUFACTORY—
70 LONG LANE, BOROUGH,
LONDON, S.E.
Scotch Agency—115 West Nile Street, Glasgow.

DO NOT THROW MONEY AWAY
BUT WRITE FOR A FREE SAMPLE OF
Tyrer's "BOROUCH" Ketchup
SILVER MEDAL LONDON.
SENT FREE TO ANY ADDRESS

SEVEN INJUNCTIONS have been granted during the past few months.

CAUTION! "YORKSHIRE RELISH."

NOTICE IS HEREBY GIVEN that in several actions instituted by Messrs. GOODALL, BACKHOUSE & CO., of LEEDS, Injunctions have been recently granted by Judges of the Chancery Division of the High Court of Judicature, restraining several persons from using several Counterfeits of Messrs. GOODALL, BACKHOUSE & Co.'s Labels, and in particular against the use of the words "YORKSHIRE RELISH." The sole and exclusive right to the use of which words having been finally established by the above Firm, they will take immediate proceedings against parties manufacturing or offering for sale Sauce under the above title, not being of the manufacture of Messrs. GOODALL, BACKHOUSE & Co.

Information may be given to the undersigned,

J. SEYMOUR SALAMAN,
12 KING STREET, CHEAPSIDE, LONDON,
Solicitor to the Trade Mark Protection Society.

TO INVALIDS
USE
MOIR'S
SOUPS
IN 1-lb. and ½-lb. GLASSES.

OX-TAIL SOUP (Clear)
MOCK-TURTLE SOUP (Clear)
BEEF TEA,
CHICKEN BROTH.

WILLIAM BUSH & CO.,
Manufacturing Chemists,
YORK STREET, WALWORTH, LONDON, S.E.
ESTABLISHED OVER 40 YEARS.

MAKERS OF

CITRATE of MAGNESIA,
MERCURIALS of every kind,
SWEET SPIRITS of NITRE,
SAL VOLATILE, B.P & P.L.,
PURE VEGETABLE COLOURS of every description, in Sugar and Paste (*to this department W. B. & Co. have given special attention, to meet the requirements of the trade*);
GLACIAL ACETIC ACID,
CONFECTIONERY FLAVOURS of every kind, and
FRUIT ESSENCES.
SUPER ESSENCE of LEMON only,
MINERAL ACIDS of every kind,
TARTARIC, CITRIC, and other ACIDS (*not makers of these, but in a position to offer*),
BORACIC ACID, &c.

SOLE PROPRIETORS OF
MARIGOLDINE,
NEW COLOUR FOR BUTTER, CHEESE, &c.



After a lengthened investigation, the Proprietors are enabled to offer this novel preparation, representing the rich colour of the Marsh Marigold, in a highly concentrated form. Being a Vegetable Extract, it will be found to impart to Butter a beautiful golden colour, free from taste, possessing its natural odour, and as pure as the herbage on which the animal feeds.

It is well known that in the Spring or Summer the rich colour of Butter is derivable from the Marsh Marigold and Ranunculi (Buttercups) of our pastures, and it has been the aim of the Proprietors to produce an article that will enable the dairymen to obtain uniformly the same results at all times of the year in the most agreeable form; and it is confidently believed that it will be found superior to every preparation hitherto sold for the purpose. Its perfect compatibility with oil and grease of every description (not watery compounds) makes it useful for many other purposes in which it is desired to obtain a rich and delicate golden tint.

Sold by Chemists, &c., and Wholesale Houses.

W. B. & Co. solicit inquiries, and will be happy to furnish Samples and Prices at all times.

SEVEN PRIZE MEDALS AWARDED.

GOODALL'S HOUSEHOLD SPECIALITIES.

YORKSHIRE RELISH.

THE MOST DELICIOUS SAUCE IN THE WORLD.

This cheap and excellent Sauce makes the plainest viands palatable, and the daintiest dishes more delicious. To Chops and Steaks, Fish, &c., it is incomparable. Sold by Grocers, Oilmen, Chemists, &c., in Bottles, 6*d*., 1*s*., and 2*s*. each.

CAUTION.—*On each Yorkshire Relish Label* is a Willow Pattern Plate, and name, GOODALL, BACKHOUSE & Co. No other is genuine.

Goodall's Baking Powder

THE BEST IN THE WORLD.

Makes delicions Puddings without Eggs, Pastry without Butter, and beautiful light Bread without Yeast. In 1*d*. Packets; 6*d*., 1*s*., 2*s*., and 6*s*. Tins.

Goodall's Quinine Wine

The best, cheapest, and most agreeable tonic yet introduced. The best remedy known for Indigestion, Loss of Appetite, General Debility, &c. Restores delicate individuals to health and vigour. In Bottles, 1*s*. 1½*d*. and 2*s*. 3*d*. each.

Goodall's Custard Powder

For making delicious Custards without Eggs, in less time and at half the price. Unequalled for the purposes intended; will give the utmost satisfaction if the instructions given are implicitly followed. Sold in Boxes 6*d*. and 1*s*. each.

Goodall's Ginger Beer Powder

Makes Three Gallons of the Best Ginger Beer in the World for 3d.

Is a delicious and invigorating beverage, possessing valuable medicinal properties. It is cooling in its nature, and a most wholesome beverage for both winter and summer. Sold in Packets, 3*d*. and 6*d*. each.

Goodall's Blanc Mange Powder

Is acknowledged by all to be the most convenient and economical preparation ever introdnced, as, by its use, a most Rich and Delicious Blancmange may be produced in a few minutes at a trifling cost, and may be had of various flavours, *i.e.*, Raspberry, Strawberry, Lemon, Almond, and Vanilla. Sold in Packets. 6*d*. and 1*s*. each.

Goodall's Egg Powder

Acknowledged to be the only real substitute for eggs yet discovered. Its action on Cakes, Puddings, &c., &c., resembles that of the egg in every particular, enriching them in colour and flavour, rendering them most wholesome and nutritious. One penny packet will go as far as four eggs: and one sixpenny tin as far as twenty-eight. In 1*d*. Packets; 6*d*. and 1*s*. Tins.

SOLE MANUFACTURERS—

GOODALL, BACKHOUSE & CO., White Horse Street, Leeds.

A Monthly Price List of Druggists' Sundries, Patent Medicines &c. can be had post free on application.

The following well-known

MEDICINES, &c., OF APPROVED EFFICACY

ARE PREPARED FROM

PRESCRIPTIONS OF EMINENT PHYSICIANS

BY

REECE & COMPANY

MEDICAL HALL, PICCADILLY, LONDON,

From whom they may be obtained direct or through any of the Wholesale Houses.

PRICES AND TERMS ON APPLICATION.

DR. REECE'S SATURATED TINCTURE BUCHU,
For Excessive Irritation of the Bladder, Prostrate Gland, Urethra, Rectum, &c., &c.
Retail 2/9, 6/-, and 10/- per Bottle.

DR. ROBINSON'S TINCTURE CORNEL,
For Local or General Debility from residing in Tropical Climates, indulgences in either Drinking or Eating, &c.
Retail 2/9, 6/-, and 10/- per Bottle.

DR. SIGMOND'S TINCTURE CHIRAYITA,
For Indigestion arising from Nervous Excitement of the Stomach, Obstruction of the Liver, &c., &c.
Retail 2/9, 6/-, and 10/- per Bottle.

DR. WILLIAM'S ALKALINE WINE COLCHICUM,
For Gout and Rheumatism.
Retail 2/9, 6/-, and 10/- per Bottle.

DR. REECE'S ALKALINE ESSENCE OF GINGER AND CAMOMILE,
For Indigestion from Debility attended with Flatulence and Spasms.
Retail 2/9 per Bottle.

DR. DUNCAN'S LETTUCE LOZENGES,
For Catarrh, Cough, Consumption, &c.
Retail 1/1½ and 2/3 per Box.

DR. ANDREW'S ETHEREAL TINCTURE LOBELIA,
For Spasmodic Asthma.
Retail 3/- and 5/6 per Bottle.

REECE'S COMPOUND ASARABACCA SNUFF,
For Nervous Headache, Weakness of Sight, Hay Fever, Catarrh, &c.
Retail 2/6 per Bottle.

REECE'S ARTIFICIAL HARROGATE SALT,
For Inflammatory Irruptions, Piles, Constitutional Costiveness, &c., &c.
Retail 2/- and 3/6 per Bottle.

DR. DICK'S BENGAL ANTIBILIOUS PILLS,
For obstinate or Constitutional Constipation, Sluggishness of the Liver, loaded state of the Viscera, &c., &c.
Retail 2/9 per Box.

DR. SCUDAMORE'S CAJEPUT OPODELDOC,
For Rheumatic or deep-seated Pains, Enlarged or Stiff Joints, Chilblains, &c.
Retail 2,6. 5/-, and 10/- per Bottle.

PROF. HERTZ' LOTION OF THE MALIC ACID,
For Removing and Preventing Accumulation of Tartar on the Teeth.
Retail 2/- per Bottle.

WRIGHT'S LINIMENT FOR THE EAR,
For Deafness occasioned by Cold, Hardened Wax, &c., &c.
2/- per Bottle.

REECE'S PREPARED CHARCOAL OF THE ARECA OR BETEL NUT,
For Preserving and Cleaning the Teeth.
Retail 2/6 per Box.

REECE'S PERIODICAL ABSORBENT PADS
Are without exception the most convenient, cleanest, and cheapest articles yet introduced for the Comfort of Ladies.
Whilst Travelling Indispensable.
Belt and Support, in Boxes, 2/6 each.
Absorbent Antiseptic Pads, in Boxes, 2/- per dozen.

DR. REECE'S "MEDICAL GUIDE TO HEALTH."
Simplest and best work of the kind.
Published at 168 Piccadilly, London. Price 5/- each

CLARK'S COFFEE EXTRACT.

The Best and Cheapest. No Waste, no Chicory. Saving time and money.

MADE IN AN INSTANT.

CLARK'S COFFEE AND CHICORY EXTRACT.

A marvel of quality and cheapness. No waste. Made in an instant.

CLARK'S EXTRACTS are in bottles to retail at 6d., 1s., and 2s., and should be sold by all Chemists, &c., throughout the world.

Clark's Extracts are made on a new and scientific principle, whereby the aroma of fresh coffee is retained unimpaired. They will keep in any climate, warm or cold, are very portable and highly concentrated, one teaspoonful of Extract making a cup of good coffee. Clark's Extracts are acknowledged by eminent and practicable judges the best in the market.

Wholesale of the usual Houses and of the Manufacturers,

E. CLARK & CO.,

OPTIMUS COFFEE WORKS, QUEEN'S ROAD, BATTERSEA, LONDON, S.W.

CHEMISTS' TEA AGENCY.

WALKER & DALRYMPLE'S

BROKEN-LEAF TEA, 1*s.* 8*d.* per lb.
A MONEY SAVING TEA. ABSOLUTELY PURE.

The small leaf from some of the finest India and China Teas. Produces a Tea in the cup, stronger, richer, and cheaper than most whole-leaf Teas. Agents appointed, where unrepresented, throughout the United Kingdom.

WALKER & DALRYMPLE'S

INTERMEDIATE TEA, 2*s.* per lb.

BEST at the PRICE EVER SOLD. Great strength and a most useful Tea where there is a large consumption. Recommended to all who wish to SAVE in their Tea. Agents appointed, where unrepresented, throughout the United Kingdom.

WALKER & DALRYMPLE'S TEAS.—

AGENTS APPOINTED, where unrepresented, throughout the United Kingdom.

Prospectus and Samples Free on Application.

Warehouses, 154, 155, 159 and 160 WHITECHAPEL ROAD, and BRADY STREET, LONDON.

P.O.O. payable at head office. Bankers, the National Provincial Bank England.

KANGRA VALLEY
Indian Tea Growers' Association,
7 NEW COVENTRY STREET,
LEICESTER SQUARE, W.

THE distinctive feature of the Business of this Association of Planters is, that the Tea is delivered to consumers in the original One lb. tin-foil lined parcels in which it is packed on the Plantations.

Chemist and Druggist.—"A new agency for tea is offered to chemists and druggists by the 'Kangra Valley Indian Tea Growers' Association,' and the fact that the well-known firm of Barclay & Sons are assisting this association in introducing their teas to the public through chemists is a guarantee that the business is of a more serious character than some other of the packet-tea agencies have proved. The Kangra tea plantations lie on the slopes of the North-West Himalayas, and this association appear to take great care in the selection of their leaves, and certainly offer a tea of fine quality. *Their teas are packed in pound packets at the plantations, and in that form are offered for sale here in three different qualities.*"

These Teas, retailing respectively at 4/, 3/, and 2/6, can be purchased in any quantity, either direct from the Store, 7 New Coventry Street, or from Messrs. Barclay & Sons, 95 Farringdon Street, Agents to the Association.

Special Terms granted to all Chemists and Druggists, to whom the Teas, on account of their absolute purity, are particularly recommended.

CONROY'S
MALT COFFEE.

GOLD MEDAL AWARDED AT CALCUTTA EXHIBITION, MARCH, 1884.



Conroy's Malt Coffee has received the following Certificates amongst many others.

"Undoubtedly a nourishing and health producing article of diet."—*Edward Davies, F.C.S., F.I.C., &c., Liverpool.*

"Most beneficial in cases of atonic indigestion."—*E. Adam, M.R.C.S., England.*

"Genuine Coffee gives me indigestion. Your Malt Coffee is entirely free from this objection.'—*S. Whitaker, Waterfoot, near Manchester.*

"Dyspeptics who could never take the ordinary coffee or date coffee can take the Malt Coffee, and with the most beneficial effects."—*Dr. Lloyd, Bangor.*

"I have frequently recommended your Malt Coffee in cases of weak digestion, invariably with satisfactory results."—*W. Bell. Senior Surgeon to the Convalescent Institution, New Brighton.*

"A most excellent combination."—*A. W, Postans, F.C.S., London.*

"Very palatable and marvellously easy of digestion."—*Society*, October 21, 1882.

"It can in many cases be readily taken when ordinary coffee disagrees."—*British Medical Journal*, July 29, 1882.

"Refreshing, and at the same time nutritious, spirit-infusing, yet absolutely non-intoxicating, palatable and wholesome to an eminent degree."—*The Colonies and India*, 29th Sept., 1882.

"Both pleasing to drink, and adds greatly to digestion."—*The Anti-Adulteration Review*, October, 1882.

"The combination ought, therefore, to improve the health of those who consume it."—*Globe.*

"Malt Coffee, the new temperance beverage, would seem to make the nearest approach to what is required. Pure malt is in its own way as beneficial as pure coffee, being especially strengthening and nutritious."—*Morning Post.*

IT IS MADE IN THE SAME WAY AS ORDINARY COFFEE.

Pamphlets containing Testimonials from Eminent Scientific, Medical, and other Gentlemen of the highest position, may be had Free for Gratuitous Distribution.

In cases of 56 lbs. each, put up in 1-lb., ½-lb., and ¼-lb. tins. Each Tin is protected by an Excise Stamp under the Regulations of the new Inland Revenue Bill of August 3, 1882.

PREPARED ONLY AT THE

MALT COFFEE WORKS, 34 FLEET STREET, LIVERPOOL.

SOLE PROPRIETORS—

EVANS, SONS & CO., 56 Hanover Street, LIVERPOOL.
EVANS, LESCHER & WEBB, 60 Bartholomew Close, LONDON, E.C.

QUOTATIONS ON APPLICATION.

Hunyadi János

CAUTION.—Circumstances which have come to the knowledge of Andreas Saxlehner, Buda Pest, Sole Proprietor of the Hunyadi János Spring, compel him to WARN the British Public against SPURIOUS IMITATIONS. To secure genuineness, purchasers should see that every bottle has on the LABEL the name of "THE APOLLINARIS COMPANY (LIMITED), London."

FRY'S MALTED COCOA

(PATENTED).

A Combination of FRY'S Pure COCOA EXTRACT with

ALLEN & HANBURYS' CONCENTRATED EXTRACT OF MALT

J. S. FRY & SONS, BRISTOL AND LONDON.

First Class Medal, New Zealand, 1882; First Prize Medal, New Zealand, 1883; Cork, 1884.

PHILLIPS & SONS' DANDELION COFFEE.

Castle Square, SWANSEA; 34 Eastcheap, LONDON.

Note London Address, having no connection with a Retail Firm of same name. Established 1760.



TRADE MARK.

R. J. FULLWOOD & CO.,

The Original Inventors of the Prime, Rich, Golden-colour Cake and Fluid Extract of

ANNATTO.

TO BE HAD GENUINE ONLY FROM THE STEAM ANNATTO WORKS,

31 BEVENDEN STREET (late 24 Somerset Place), HOXTON, LONDON.—Established 1785.

SCOTT'S MIDLOTHIAN OAT FLOUR

IS UNEQUALLED AS THE MOST WHOLESOME AND NUTRITIOUS FOOD FOR INFANTS AND INVALIDS.

SCOTT'S MIDLOTHIAN OAT FLOUR, which is made entirely from the finest quality of Midlothian Oats, is so purified from the Fibrous Integument, that it has concentrated in it 80 per cent. more flesh and bone forming properties than the finest Oat Meal, which is acknowledged to be the most nutritious of all Cereals. Unlike many preparations sold for Infants' Food, which contain a mixture of Cereals that would require different degrees of boiling to become properly assimilated, SCOTT'S MIDLOTHIAN OAT FLOUR is easily prepared, most satisfying and invaluable in promoting a healthy regularity of system when given to infants, as it can be used through an ordinary Feeding Bottle by Infants of Two weeks old. For Invalids and Adults, SCOTT'S MIDLOTHIAN OAT FLOUR is unequalled as a satisfying, nourishing, and easily digested food. Highly Recommended and used by Eminent Physicians. Used in the leading Hydropathic Establishments. Sold by GROCERS and CHEMISTS in Tins of various sizes.

Sole Makers—A. & R. SCOTT, MILLERS, GLASGOW.

THE CLARENCE TRADE MARK SAUCE



Is most useful and economical to Hotel Keepers, Clubs, Restaurants, and the General Public.

It is indispensable with all kinds of made dishes, Soups, Gravies, Cold Meats, Salads, Cheese, &c., and its application to a Chop or Steak makes the repast a perfect luxury. With Fish it finds no rival. It is a perfect antiseptic and dietetic, and will be found beneficial to those suffering from want of appetite or weak digestion.

The Clarence Sauce differs from others in one grand feature, no animal or deleterious matter being used in its production. Its ingredients are composed of the finest vegetable productions selected from all parts of the world.

The celebrated Chef Francatelli averred that he never sent a made dish to table without this Sauce. SOLE PROPRIETORS:

CLARENCE & CO.,

10 Dean Street, Holborn, LONDON, ENGLAND.

The Sauce is made in two strengths, "HOT" and "MILD."

Price 1s. per Small Bottle and 2s. per Large Bottle.

WHOLESALE TERMS AND SAMPLES ON APPLICATION. SPECIAL RATES TO SHIPPERS.

GREAT IMPROVEMENT IN BUTTER COLOURING.

BUNSEN'S ANNATTOINE

FOR BUTTER COLOURING.

This Preparation, which is **PURELY VEGETABLE**, will be found to be much superior to any other Butter Colouring hitherto invented Being an oily solution, it more readily combines with the milk fat, and consequently gives a more uniform tint; while at the same time it gives that pure, rich golden colour to Butter and Cheese so much appreciated. In Bottles, **1s.** and **2s 6d** each.

BUNSEN'S ANNATTOINE contains within itself all the requisites of a good Butter Colour. It is free from smell; tasteless: perfect in shade of colour; and the Proprietors believe that a shilling bottle will colour a greater weight of Butter or Cheese than any other shilling's-worth in the market.

Chemists should order a few Bottles as sample from their Wholesale House.

MANUFACTURED ONLY BY

BUNSEN, BENSON & CO., 80 Fann Street, Barbican, LONDON, E.C.

ORANGE-QUININE TONIC-WINE.

As originally introduced by us, containing 1 grain of quinine to the ounce.

To meet the requirements of the trade, we have reduced the prices as below. The size of the bottles and the quality are as hitherto supplied:—

In bottles 6 to gallon, to retail at **2s.** each, at **19s.** per doz. In small bottles, to retail at **1s** each, at **9s.** per doz.

Less 5 per cent. discount. Carriage paid to any part of England on quantities of 3 dozen large or 6 dozen small bottles.

HIRST, BROOKE & HIRST, LEEDS.

ORANGE WINE.

Most suitable for making Quinine Wine because of its containing the least percentage of tannic acid possible, and being in the most brilliant condition. In casks of not less 8 gallons, 4*s.* per gallon, carriage paid. Extra superior quality (finest made), 4*s.* 6*d.* per gallon, carriage paid.

SAMPLES FREE AND CARRIAGE PAID UPON APPLICATION TO

LAMB & WATT, 46 and 48 ST. ANNE STREET, LIVERPOOL.

RANDALL'S BLACK CURRANT LOZENGES.

	Net Cash.		To Acct.	
	s.	*d.*	*s.*	*d.*
Plain Black Currant, old square	2	6	2	8
,, ,, ,, rough oval	2	6	2	8
Black Currant and Ipecacuanha	2	6	2	8
Black Currant and Tannin..	3	0	3	3
Black Currant Voice (warm astringent) ..	3	0	3	3
Black Currant Cough Lozenges *	3	6	3	10

(* Ipecac. and Morph., strength as "B. P.")

In Bottles, 1 lb., 2 lbs., 4 lbs., and 7 lbs. For Exportation, in soldered tins, of any size. From EDWARDS, London; through any Wholesale House; and from the Manufacturers,

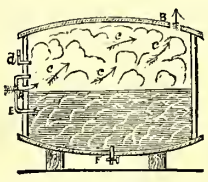
RANDALL & SON, Southampton,

Who will forward Samples by post on application.

Also, BROWN COUGH LOZENGES, 2*s.*, 2*s.* 2*d.*; 7 lbs. stamped with name free and MUSK LOZENGES (*Special*), 2*s.* 6*d.*, 2*s.* 8*d.*

N.B.—Medical Lozenges of every kind,

Including those of the Pharmacopœia of the Hospital for Diseases of the Throat, London.



NEW METHOD OF MAKING VINEGAR

BY THE REVOLVING APPARATUS

(Michaelis' Patent).

For further particulars

See the Chemists' and Druggists' Diary, 1884, page 274

OR APPLY TO

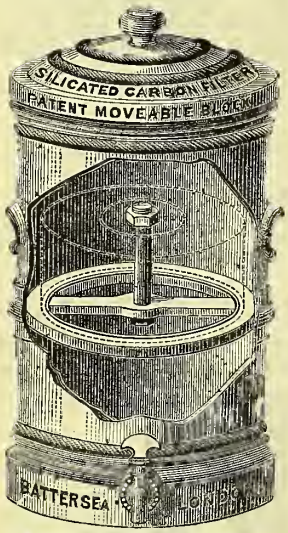
PAUL ROTHERMEL,

105 (late of 27) LEADENHALL ST., LONDON.

SILICATED CARBON

PATENT MOVABLE-BLOCK FILTERS.

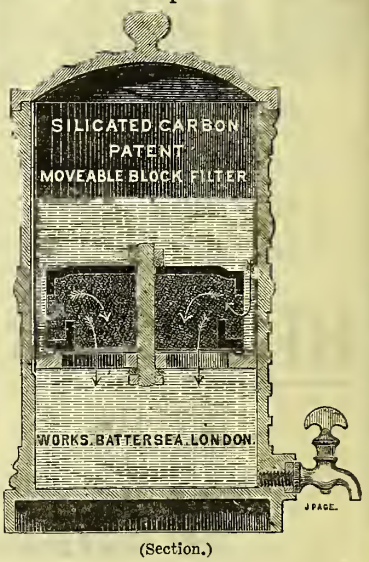
These Filters are constructed on Scientific principles, and can be renewed or repaired by the user without returning to the maker. They possess all the advantages of those with fixed filtering mediums, while the simple removal of the Silicated Carbon Block leaves the *whole* of the interior of the Filter open for inspection and cleansing. The working parts are stoneware, and corrosion is impossible.



(Elevation with Block removed.)

NO LOOSE PAN OR INNER VESSEL TO CAUSE BREAKAGE.

The block being non-porous on the top and edges, an *upward* direction is given to the water, which thus passes through a greater thickness of the Silicated Carbon, as shown by the arrows in drawing.



(Section.)

The Silicated Carbon Block can be instantly removed, leaving the whole of the interior of the Filter *open* for inspection and cleansing.

To Cleanse the block, plunge it into boiling water, and well scrub it with a hard brush.

Extra blocks can be supplied with each Filter. All parts being interchangeable can be replaced in case of accidents.

This Patent can be adapted to all patterns manufactured by the Silicated Carbon Filter Co. *without increased charge.* In ordering please state "*with patent movable block.*"

Domestic Filters (as above), in Cream-coloured Stoneware, with Plated Taps and Patent Movable Blocks:—

No. 27. O. ½ gal. 10/6 each. D. 6 gals. 42/- each.
A. 1 „ 14/6 „ E. 8 „ 52/- „
B. 2 „ 21/- „ F. 12 „ 70/- „
C. 4 „ 32/- „

Dining Room Filters, in Marbled China, with Plated Taps and Patent Movable Blocks:—

No. 22. A. 2 gals. 35/- each.
B. 5 „ 80/- „

Refrigerative Terra Cotta do., do.:—
No. 25. 2 gals. 31/6 each.

All makes of Filters can be refitted on this principle, 1 gal. 8/6, 2 gals. 10/-, 4 gals. 12/- each. Larger sizes in proportion.

SILICATED CARBON FILTER COMPANY.

WORKS: BATTERSEA, LONDON.

SILICATED CARBON FILTERS.

SYPHON FILTERS FOR TRAVELLERS.

By means of these Filters pure and perfectly wholesome water may be drunk from any pond or stream by simply immersing the Filter therein and drawing the water through the tube by suction.



No. 20.

Each of these portable Filters may be used as a Syphon by placing it in a vessel of water, then drawing the water by the mouth, and allowing the flexible tube to hang over the side below the Filter. When once set in operation their action is continuous.

	s.	d.
A.—Pocket Filter, 2½ inches diameter, in porcelain, with glass mouthpiece, in decorated metal-box	2	6
B.—Ditto, 3½ inches diameter, in best stoneware	5	0
C.—Emigrant's, 5 inches diameter, with silver-plated tap	12	0
G.—Pocket Filter, for carrying over shoulder, as supplied to the Forces in Abyssinia and Zululand, and to the Ashantee and Egyptian Expeditions	3	6
H.—Ditto, nickel-plated, designed by Major Fraser, R.E., and specially recommended by the Horse Guards for Officers' kits	5	0

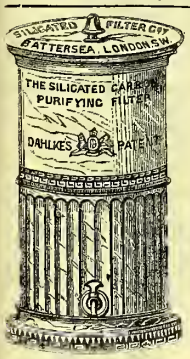
TABLE FILTER, NO. 24.



Made of stout glass, in 1, 2, and 3 pint sizes, the filtering medium being securely fitted into the bell-funnel, so that it is not liable to become loose, or to allow unfiltered water to pass. This Filter is peculiarly suited for the Bedroom and for Table use, affording a ready and simple means of obtaining at any time freshly-purified water.

PRICES.

No. O, 2s. 6d.; A, 4s.; B, 5s. 6d.
Engraved Vine Pattern—O, 3s. 6d.; A, 5s. 6d.; B, 7s. 6d.



DINING-ROOM FILTER, No. 22.

MADE IN MARBLED CHINA.

Size A holds about two gallons; size B, five gallons.

PRICES.

A	35s.
B	80s.
A, with Ice Compartment.. .. .. .. (New Patent.)	42s.
B, with Ice Compartment.. .. .. .. (New Patent.)	100s.

The large size (B) is specially adapted for Hotels, Refreshment Rooms, Luncheon Bars, &c.

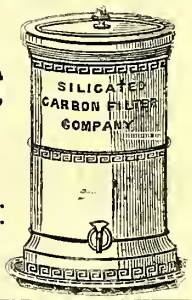
REFRIGERATOR FILTER, NO. 25.

Made in Porous Terra-Cotta Ware,

Which acts with remarkable power as a cooler, and renders this Filter invaluable, especially in Tropical Climates,

AFFORDING A

COOL DRAUGHT OF PURE WATER.



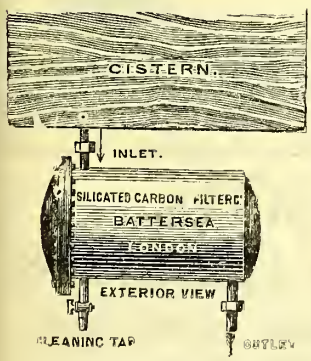
Price, with Silver-plated Tap .. .. .. 31s. 6d.
Ditto, ditto, with Ice Compartment.. .. 42s. 0d.
Capacity Two Gallons.

Specially adapted for Tropical Climates.

MAIN SUPPLY FILTER, NO. 40,

FOR

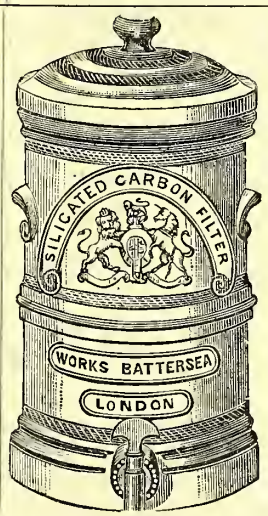
MINERAL WATER MANUFACTORIES,



As used by Messrs. Schweppe, London, Liverpool, Glasgow, &c.; Messrs. Cantrell & Cochrane, Belfast, and most of the large makers.

PRICES.

For ¾-in. Pipes ... £6 6s.
„ 1-in. „ ... £9 9s.



DOMESTIC FILTER, No. 27.

Made in cream-coloured Stoneware, fitted with the Silicated Carbon Media, complete with Cover and Silver-plated Tap.

PRICES.

No. O,	capacity	½	gallon.....	10s. 6d.
No. A,	„	1	„	14s. 6d.
No. B,	„	2	„	21s. 0d.
No. C,	„	4	„	32s. 0d.
No. D,	„	6	„	42s. 0d.
No. E,	„	8	„	52s. 0d.
No. F,	„	12	„	70s. 0d.

FOR FULL PARTICULARS WRITE TO THE

SILICATED CARBON FILTER COMPANY,

CHURCH ROAD, BATTERSEA, LONDON, S.W.

MAIGNEN'S PATENT
"FILTRE RAPIDE"

GOLD MEDAL AND
TWO DIPLOMAS OF HONOUR
INTERNATIONAL FISHERIES EXHIBITION.

GUARANTEED TO REMOVE
ALL THE GERMS OF DISEASE
FROM WATER.



Fig. 1. "Bijou D."

The filtering medium is easily removed, and a new charge put in its place at a trifling expense.

For Cottage, House, Hall, Workshop, Laboratory, and Office.

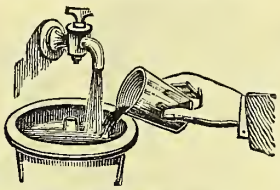


Fig. 4. Charging the filter.

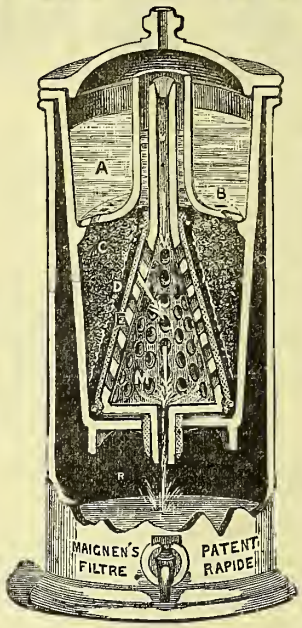


Fig. 3.

The ONLY Filter recommended by the Sanitary Institute of Great Britain, and the National Health Society.

For Cottage, House, Hall, Workshop, Laboratory, and Office.

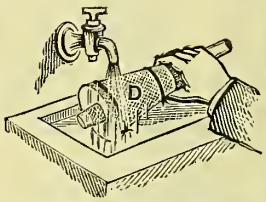


Fig. 5. Cleansing the filtering frame.



Fig. 2. "Cottage."

PRICES (in London, Package and Carriage extra).

"BIJOU D"—White Stoneware (black decoration).

No. of Filter.	Contents.	Filtering per hour.	Price.
'Bijou" No. 1D* ...	1 gallon	1 gallon	£1 5 0
" No. 2D ...	2 "	2 "	2 0 0
" No. 3D ...	3 "	3 "	3 0 0

* "Bijou No 1D," with hand-painted design, crystal or stoneware, from £2 10s.

PRICES (in London, Package and Carriage extra).

"COTTAGE"—Brown Stoneware.

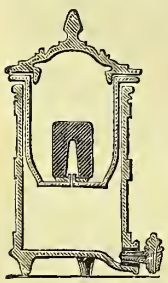
No. of Filter.	Contents.	Filtering per hour.	Price.
"Cottage" No. 1 ...	1 gallon	1 gallon	£0 15 0
" No. 2 ...	2 "	2 "	1 5 0
" No. 3 ...	3 "	3 "	1 15 0
" No. 4 ...	6 "	4 "	3 0 0

Particulars of Larger Filters, suitable for attaching to Cisterns and for Waterworks, on application to

P. A. MAIGNEN, Patentee, 22 & 23 GREAT TOWER ST., LONDON, E.C.

Sole Contractor to the International Health Exhibition, Author of "Water, Preventable Disease, and Filtration."

DOULTON & CO., LAMBETH, LONDON, S.E.



DOULTON'S MANGANOUS CARBON FILTERS (Dr. Bernays's Patent).

The Combination prepared under this Patent gives to the Charcoal its highest value as a

FILTERING MEDIUM.

The Filter is made in four movable parts—the body, the lining, the Manganous Carbon block, and the cover. By this means every portion of the Filter may be

KEPT PERFECTLY CLEAN,

and the Manganous Carbon block may be changed as often as necessary WITHOUT PARTING WITH THE FILTER.

DOULTON'S IMPROVED GRANULAR CHARCOAL FILTER.

In addition to the bed of Granular prepared Charcoal, these Filters are fitted with a movable block of MANGANOUS CARBON in place of sponge. This arrangement, whilst acting as a screen for suspended matters, gives a double action to the power of the FILTERING MEDIA.

Any Description of Filter Refitted at Moderate Charge.



DOULTON & CO. also manufacture Boudoir or Table Filters, Pocket and Syphon Filters for Tourists' use, Manganous Carbon Self-Acting Cistern Filters, Refrigerator Filters, High Pressure Filters for manufacturing purposes, &c. May be had of all Dealers.—DOULTON & CO., Lambeth, London, S.E.

M. A. CRAVEN & SON,
WHOLESALE AND EXPORT CONFECTIONERS,

MAKERS OF

Medicated Lozenges, Refined Liquorice, Jujubes, and every description of Confectionery,

IMPORTERS AND MANUFACTURERS OF LEMON, ORANGE, AND CITRON PEELS.

EBOR CONFECTIONERY WORKS,

YORK.

Lozenges of all descriptions made from Customers' private formulæ (or Ingredients), and stamped with any name or device.

SPECIALITIES—Cough, Peppermint, Rose, Musk, Bouquet, Cachou, and all kinds of Medicated Lozenges.

ESTABLISHED 1843. PRICE LIST ON APPLICATION.

F. DARTON & CO.,

MAKERS TO H.M.'S GOVERNMENT,

Established 1834. **45 ST. JOHN STREET, WEST SMITHFIELD.** [Established 1834.

Darton's Improved Imperishable Index Clinical Thermometers,

As noticed in the *Lancet*, *Chemist and Druggist*, &c., can be obtained only of the Inventors and Makers; cannot get out of order, and are therefore specially suited for Export.

PLAIN CLINICAL THERMOMETERS (FAHRENHEIT OR CENTIGRADE SCALE).

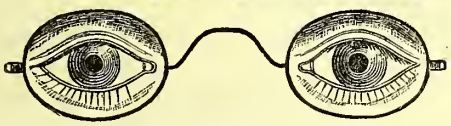
4 or 6 in., in case, 3/6 each. 4 in. or 6 in. ditto, contracted in Ebony Case, 4/ each. If with Magnified Bore, 6/ each.

DARTON'S IMPROVED DITTO. IMPERISHABLE INDEX, 4 or 5 in., 5/ each. Ditto, Enlarged and Magnified Bore, with lens front. 7/ each. One Bent and One Straight 6-inch Clinical Thermometer, in Morocco Snap Case, 10/6 the set. Kew Certificates, 1/3 each extra.

BATH THERMOMETERS, Japanned Tin Cases, Silvered Metal Scales, 8 inches long, 12/ per dozen. Ditto, Enamelled Tubes, with Dr. Forbes' Specifications, 15/6. 8-in. Boxwood ditto, with spirit tubes, 5/6 doz. Ditto, Bevelled Porcelain Scales, 18/ doz.

All kinds of Thermometers and Barometers made to Order. A large Selection always in stock.

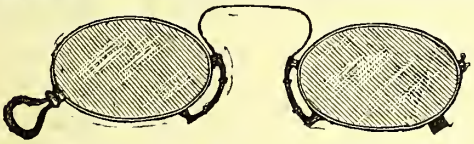
SPECTACLES.



Iron Frames, Convex Glasses, Assorted Sights.
Common, 18/ per gross. Better ditto, 21/ and 30/ per gross.
Cases for ditto, 12/ per gross.

Steel Frames—Common, 4/6 & 6/ per doz. Better Quality, 10/ per doz.
Ditto, fitted with Neutral Tint Glasses, 12/ per dozen.
Large Eye, Best Quality Frames, and Best Neutral Tint Glasses, 30/ doz.
Ditto Light Ball-Joint Frames, 18/ per dozen.
Ditto Light Straw Frames, Grooved Glasses, 24/ per dozen.
Ditto Extra Light Frames, Best White Glasses, 36/ per dozen.
Pantoscopic ditto, with Polished Edge Glasses, 36/ per dozen.
Steel Frames, with Convex Pebbles, 27/ per dozen.
Ditto Better Quality Frames, 42/ per dozen.
Ditto Best Pebbles, 48/ per dozen.
Ditto Extra Light Frames and Best Pebbles, 60/ per dozen.
Globular Spectacles, Neutral Tint, Domed Glasses, 7/6 per dozen.
Ditto Stout English, 30/ per dozen. [dozen.

D EYE SPECTACLES, Neutral Tint Glasses, Best Quality, 48/ per

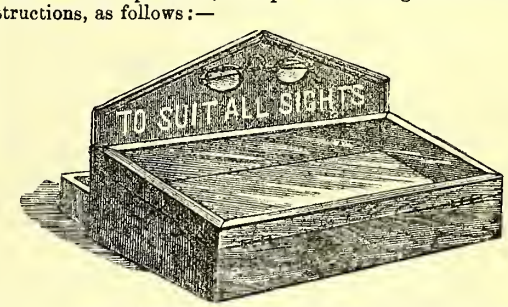


Common Steel Folders, 4/6 per dozen. Steel, 6/ and 7/6 per dozen.
Ditto Grooved Glasses, Light Frame, 15/6 per dozen.
Ditto Nickel Plated, Grooved. Extra Light, 24/ per dozen.
Ditto Best Fancy Handled, 42/ per dozen.

D EYE SPECTACLES—continued.
Nickel Plated Folders, Coloured Glass, 36/ per dozen.
Tortoiseshell ditto, Convex Glasses, 30/ per dozen. [dozen.
New Pattern Gold Cased Japanese Folders, will wear like gold, 60/ per

FRAMELESS FOLDERS from 7/6 per dozen.
Nickel Plated Japanese Folders, with Domed Glasses Best Finish, Blue and Neutral Tint, 30/ per dozen.

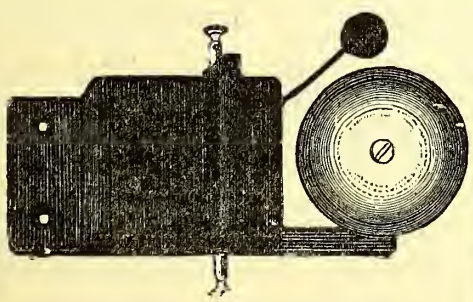
For the convenience of Customers who have not yet started the Sale of Spectacles, we fit up Show Cases, containing an assortment of Spectacles, complete with Sight Tester and Instructions, as follows:—



Our £2 2*s*. SHOW CASE for the Counter, in Polished Mahogany, contains 4 dozen Spectacles, Sight Tester, and Instructions for suiting sight.
Our £3 3*s*. CASE contains, in addition, 2 dozen Folders and 2 dozen Cases.
Larger sized Cases, in Polished Mahogany or Ebonised, with an assortment of superior quality Spectacles, Folders, and Cases, £6 6*s*. and £10 10*s*.
Ditto, with assortment of Best Pebble Spectacles and Folders, £21.

New Illustrated Price List of Spectacles and Folders, with Trade Terms, on application.

ELECTRIC BELLS.



NEW FORM METAL FRAME ELECTRIC BELL,

with 2½ Plated Dome, 4/6 each. Complete, with Large Battery, Push Piece and Wire, and Instructions for Fixing, 10/6. If with best quality bell, 14/6.

INVALIDS' ELECTRIC BELL SET,

with Bell and Battery in Polished Case, 30 feet of Flexible Line Wire, and Pear Push, 21/ each. Ditto in polished Mahogany Case, with 3-in. best bell, 27/.

Estimates given for Fitting up Houses or Shops.

MAGNETO ELECTRIC MACHINES,

in Pine Case, 10/6; ditto in Mahogany, 16/6; ditto, best quality, with plated handles, &c., 22/6.

INCANDESCENT LAMPS

for the Electric Light, 4/ each. Ditto, with 3 Cell-Battery complete, 21/ each.

NEW ILLUSTRATED PRICE LIST OF ELECTRIC BELLS AND FITTINGS SENT POST FREE ON APPLICATION.

W. H. BAILEY & SON,

38 (late 16) OXFORD ST., LONDON,

Six doors from Hanway Street.

ESTABLISHED A.D. 1833.

FIRST PRIZE (SILVER MEDAL) FOR TRUSSES AWARDED BY THE WORSHIPFUL COMPANY OF CUTLERS OF THE CITY OF LONDON. MAY, 1879.

FIG. 1.

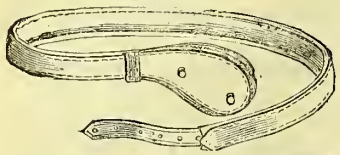


FIG. 4.

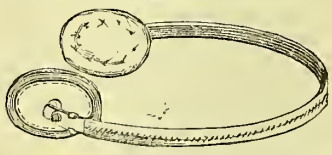
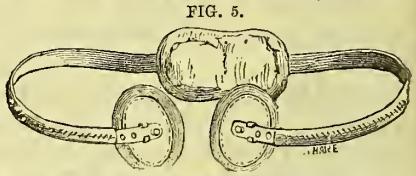


FIG. 5.



TRUSSES.

Circular Trusses, single, as Fig. 1, hasil and chamois or basil and moleskin .. .. per doz.	£1	1	0
Circular Trusses, double, basil and chamois or basil and moleskin per doz.	1	14	0
,, ,, ,, with extending backs .. ,,	2	14	0
Salmon & Ody's Expired Patent, single, Fig. 4 .. ,,	1	10	0
,, ,, ,, double, Fig. 5 .. ,,	3	0	0
Moc-Main Lever, single .. .. each	0	8	0
,, ,, double .. .. ,,	0	13	6
Coles's Expired Patent, single .. .. ,,	0	6	0
,, ,, ,, double .. .. ,,	0	12	0
Scrotal Trusses, hasil and chamois or moleskin, single .. ,,	0	4	0
,, ,, ,, ,, double .. ,,	0	7	0

SUSPENSORY BANDAGES.

No.				
1. Cotton Bags and tape under-straps .. .. .. per doz.	£0	8	0
2. Cotton Oxonian, with drawing-strings .. .. ,,	0	10	0
3. Silk Bags and tape under-straps .. .. ,,	1	1	0
4. Silk Oxonian, with drawing-strings	0	18	0
5. Silk Oxonian Bags bound with elastic .. .. per doz.	1	4	0

SUSPENSORY BANDAGES—*continued.*

No.				
6. Silk Oxonian, superior quality, bands of buff jean, with drawing-strings .. .. per doz.	£1	4	0
7. Silk Bags, to button on, with tape under-straps.. ,,	1	1	0
8. ,, ,, ,, under-straps to button ,,	1	4	0

ELASTIC STOCKINGS, KNEE-CAPS, ETC.

Manufactured expressly for Export, and warranted to stand a hot climate better than any others in the Market.

	Silk.			Super. Silk.			Cotton.			Super. Cotton.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Stockings .. .. per pair	0	10	0	0	15	0	0	6	0	0	7	0
Knee-caps .. .. .. ,,	0	6	6	0	10	6	0	4	0	0	5	6
Calf-pieces .. .. .. ,,	0	7	6	0	10	0	0	4	6	0	6	0
Socks .. .. ,,	0	5	6	0	8	6	0	3	10	0	5	0
Wristhands .. .. .. ,,	0	2	3		—		0	1	8	0	2	0
Knee Stockings .. .. ,,	0	16	0	1	5	0	0	9	2	0	12	1
Belts, to draw on .. ..each	0	16	6		—			—		0	12	0

The above may be obtained direct from the Manufacturers, or from their Wholesale and Export Agents, Messrs. Barclay & Sons, 95 Farringdon Street.

UNIVERSAL
TUBULAR WATER & AIR BED

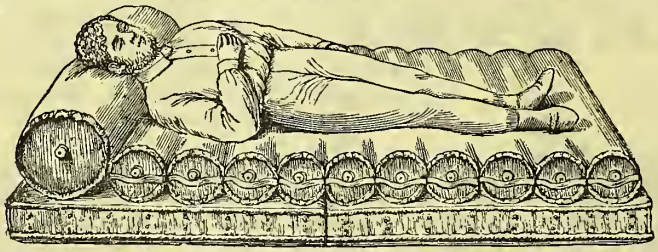
Prize Medals, Sanitary Congress, 1878; Industrial Exhibition, York, 1879; Certificate of Honour, Sanitary Congress, 1879; Brighton, 1881; International, 1881; Kensington, 1882.

POCOCK BROTHERS,

PATENTEES AND SOLE MANUFACTURERS,

235 SOUTHWARK BRIDGE ROAD, LONDON.

Consists of a series of separate and distinct cylinders, any diameter and suitable length, made of Waterproof material either for Water or Air, fitting into a case which keeps them side by side, but slightly apart.



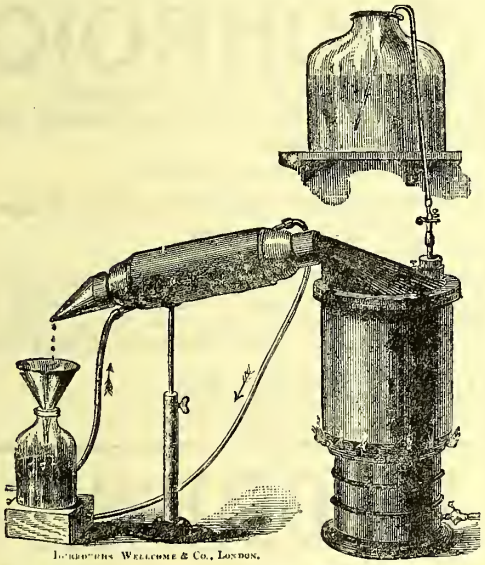
ITS ADVANTAGES OVER ORDINARY WATER OR AIR BEDS ARE AS FOLLOWS :—

1. In cost it is less expensive.
2. It is warm and light, and well adapted for a camp or field-bed, being waterproof.
3. It is quickly filled and easily adjusted.
4. It admits of ventilation in the space between the tubes.
5. It can be regulated so as to relieve pressure from any part required.
6. By the addition of tubes it will raise one part of the body higher than the rest.
7. By the temporary removal of one or two tubes it affords room for the introduction of bed-pan.
8. It can be inclined to any angle (even when filled with water) to suit the condition of the patient.
9. It is free from noise and surging, so disagreeable to the invalid on changing his position on a water-bed.
10. In case of injury to a tube it can be withdrawn, and a fresh one substituted at a trifling cost, and without loss of time; whereas the ordinary water-bed if injured in any part (from being in one compartment) is rendered useless.
11. In the treatment of insane or paralysed invalids who have no control over their evacuations, they cannot lie in a pool of wet, the fluid passing away between the tubes.

THE "REMINGTON" PHARMACEUTICAL STILL

(Invented by Professor J. P. Remington, Philadelphia College of Pharmacy, U.S.A.).

SIMPLICITY. ECONOMY. DURABILITY.
EASE OF ADJUSTMENT. POWERFUL CONDENSATION.
RAPIDITY OF ACTION.



PRICE, in Tinned Copper .. .. £7.
,, Nickel Plate .. .. £9.
Special Prices for Larger Stills.

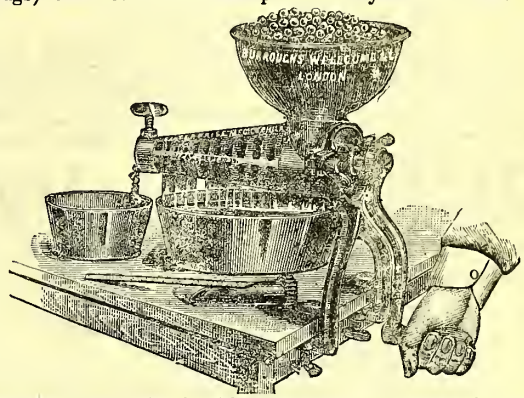
Many improvements have been made in this Still, which adapt it better to Pharmaceutical wants than the still which was first presented to the profession.—See *American Journal of Pharmacy*, January, 1878. The Still shown in the cut is the NEW FORM, the Still body holding over three gallons; the CONDENSER has seven straight tubes surrounded with the cold water introduced by a rubber tube from a hydrant or bucket of water placed higher than the Still, and carried off as it becomes warmed by another tube as indicated by the arrows. BY THE SIPHON ARRANGEMENT SHOWN IN THE CUT, it is possible to feed the Still from a reservoir, whilst distillation is in progress, thus using a three-gallon Still where a much larger one would have been necessary.

The Still may be set into a kettle partly filled with water and thus used as a WATER BATH, or a shallow dish with flat rim which accompanies the Still may be placed between the two brass ring bands and clamped securely, as explained in article published in May (1879) number of *American Journal of Pharmacy*.

THE ENTERPRISE TINCTURE PRESS.

Specially adapted for Coarse and Fibrous Drugs.

The principle upon which the Press operates is, that the drug is acted upon in a continuous thin layer, which is forced forward by each revolution of the screw into smaller and smaller space, the leverage yielding a force so powerful as to extract almost the entire moisture, delivering the residue of suitable drugs with almost crisp dryness, and, as experience has shown, it saves a greater amount of Tincture (very important in the case of Tincture of Opium and other expensive drugs) than even the most powerful Hydraulic Press. So



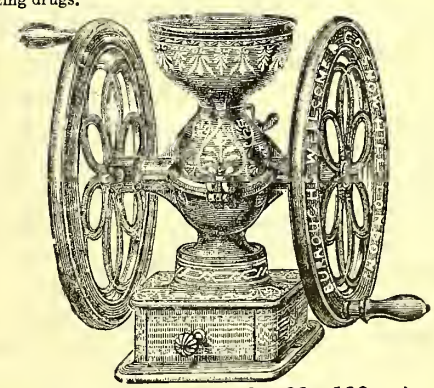
thorough is its action in this respect that the *Chemists' Journal* has humourously remarked of it that "it will almost squeeze blood out of a turnip." One firm informs us that they have saved at least £20 more in three months, by the use of this Press, than they could secure by using any other. The working of this Press being continuous, either small or very large quantities may be operated upon at one time, and much more rapidly than in any other form of apparatus.

The fact that drugs require handling but once, that the use of press cloths is done away with, and that the operation is continuous, shows a great advantage in this Press over any other.

Price 15 shillings, subject to the usual discount. Obtainable from every Wholesale Druggist.

THE ENTERPRISE DRUG MILL.

Constructed on an improved principle. the cutters being easily removable for inspection, or for cleaning. It may be regulated to grind to any degree of fineness or coarseness, by simply turning a single thumbscrew. It is adapted to almost any dry pulverizable substance; it works rapidly, and is economical. Professor MAISCH, one of the highest American authorities on pharmacy, says that "It is the best drug mill that has yet been devised. It is intended to displace the use of the mortar for general purposes in pulverizing drugs."



Prices { Plain .. 40s., 60s., 100s. / Ornamented 50s., 70s., 110s. } **each.**
Subject to the usual Discount for Cash.

All of the Articles mentioned above may be obtained from any respectable wholesale firm, or from
BURROUGHS, WELLCOME & CO., of SNOW HILL BUILDINGS, LONDON, E.C., the Sole European Depôt.

THE "A 1" COD LIVER OIL.

WINTER 1884-5.

The "A 1" Oil, manufactured by us at our own factory in Norway, is specially adapted for Winter sale. It has stood the test in previous seasons, as the following quotations prove:—

21 West Derby Road, Liverpool, July 21, 1881.

I have had *the usual "extra" oils and "best" of the markets*, but none besides yours remained bright through the winter, and they have stood side by side under the same conditions. You are quite free to use this as you please. I am, Gentlemen, yours faithfully,

Messrs. Southall Brothers & Barclay. B. DICKINS.

The "A 1" Oil differs from ordinary Cod Liver Oils, as it contains less of the fatty acids, and is consequently more digestible.

"MEDICAL EXAMINER" says:—"The Oil is prepared free from the large quantity of solid fats which are held in solution in most other Cod Liver Oils, thus rendering it far more digestible and palatable to the patient."

49 Chippenham Road, St. Peter's Park, Paddington, W., June 1, 1881.

GENTLEMEN,—I have great pleasure in bearing testimony to the purity and excellence of your "A 1" Cod Liver Oil. Most of my customers ask for "that nice Cod Liver Oil," and several can keep it down when the stomach has rejected other oils previously. The doctors about me send their patients for the "A 1" Oil. Yours very truly,

Messrs. Southall & Co., Birmingham. E. R. MARSH.

NUMEROUS GOLD AND OTHER PRIZE MEDALS HAVE BEEN AWARDED THE "A 1" OIL.

The price is 13/6 per gallon in Winchesters. Eight Blue Trade-mark Labels supplied with each Winchester Quart. The "EN NORSK FISKER" Labels, in colours, are sold at 2/6 per 100.

SOUTHALL BROS. & BARCLAY, Manufacturing Chemists, BIRMINGHAM.

DRAPER'S INK (DICHROIC)

THE NEW BLACK INK, different from anything else ever produced.

Writing becomes a pleasure when this Ink is used. It has been adopted by the principal Banks, Public Offices, and Railway Companies throughout Ireland.

It writes almost instantly full black.
Does not corrode Steel Pens.
Dries rapidly on the Paper.
Is cleanly to use, and not liable to blot.

Flows easily from the Pen.
Blotting-paper may be applied at the moment of writing.

In Jars, 6d., 1s., and 2s. each.

Can be obtained, in London, through Messrs. BARCLAY and SONS, Farringdon Street; W. EDWARDS and SON, 157 Queen Victori, Street, E.C.; F. NEWBERY and SON, Newgate Street; S. MAW, SON, and THOMPSON, Aldersgate Street; HAYDEN and Co. 10 Warwick Square, Paternoster Row; HOVENDEN and SONS, City Road; AYRTON and SAUNDERS, Duke Street, Liverpool; GOODALL, BACKHOUSE and Co., Leeds; JNO. HEYWOOD, John Dalton Street, Manchester; JAMES HEMINGTON, 6 Moor Street, Birmingham; HENRY HODDER, Broad Street, Bristol.

BEWLEY & DRAPER, Limited, DUBLIN.

See "CHEMIST AND DRUGGIST," December 15th, 1874.

SAVORY & MOORE'S
PANCREATIC EMULSION,

OR PANCREATISED (PREDIGESTED) FAT,

Largely Prescribed as an Article of Diet in all cases of CONSUMPTION, WASTING, LOSS OF APPETITE, STRENGTH, AND DIGESTIVE POWER.

The special advantage of Pancreatic Emulsion is that it provides the NATURAL STABLE SOLID FATS OF FOOD, predigested by the action of the Pancreatic secretion, so that they can be taken without the least disturbance of the digestive functions. As it provides solid fat, it is well to make it alternate with a liquid fat, like Cod Liver Oil, even where the latter agrees; and in many cases where Cod Liver Oil disagrees it may be permanently substituted with the greatest advantage, or it may be taken with the Oil, the assimilation of which it actively promotes.

The Emulsion is of the consistence of Devonshire Cream, easily miscible with fluids, and quite unobjectionable in taste. It may be given in milk or water, and with the addition of a little wine or brandy if desired.

In Bottles, 2s. 6d., 4s. 6d., and 8s.

SAVORY & MOORE, 143 NEW BOND ST., W.

THE CHEMIST AND DRUGGIST

COLONIAL BUILDINGS, 42 CANNON STREET, LONDON, E.C.

Published on the 15th of each Month.

Subscription 10s. per year, payable in advance; commencing from any date.

Post free to every country in the world. Single copies. 1s. each.

Supplied only to persons connected with the Trade.

By our clubbing arrangements THE CHEMIST AND DRUGGIST and THE DRUGGIST'S CIRCULAR, of New York, are supplied together for 14s. 6d. per annum through us, or $3.50 per annum through the office of our New York contemporary.

Post Office Orders to be made payable to EDWARD HALSE, at the General Post Office.

THE CHEMIST AND DRUGGIST is supplied regularly by arrangement with their respective Councils to all members of the following societies:—

The Pharmaceutical Society of Victoria.
The Pharmaceutical Society of New South Wales.
The Pharmaceutical Society of Queensland.
The Pharmaceutical Society of New Zealand.

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PUBLISHER'S NOTICES.

THE DIARY for 1885 is nearly finished, and any more advertisements for it must be sent on before the end of this month, as the Australian edition will have to be forwarded by the *Austral*, leaving London on November 12. Any modifications of series orders for advertisements should also be forwarded at once, as these all appear in the Diary.

In our forthcoming Diary will be published the most complete treatise on the art of dispensing which has ever been printed. It is based on the treatise published in a former Diary, supplemented by Dr. Hager's chapters, which have already appeared in this journal, and other sections of his work which have not yet been published in English; and the whole is interspersed with comments by a number of gentlemen practically engaged in dispensing. This treatise will give the work a special value, and, already, outside orders for it are coming in. Any subscriber can order extra copies for his assistants or others at 2s. 6d. each; to non-subscribers the price of the Diary is 3s. 6d. But it must be understood that extra copies ordered after October 31 will only be supplied so long as our surplus stock will allow. No reprint will be possible.

THE MONTH.

At the last meeting of the Pharmaceutical Council the subject of legislation was considered, but nothing definite was arrived at. We have endeavoured to show that if anything is to be done in Parliament, the trade should resolve on a simple, definite policy, which it would be prepared to defend and advocate.

***

The Pharmaceutical Council have resolved to place six more annuitants on the Benevolent Fund, making forty-five in all.

***

The annual meeting of the Pharmaceutical Society of Ireland was held on October 6. The President considered the Society had made "some progress," though it appeared from the Treasurer's statement that the expenditure slightly exceeded the revenue.

***

The new session of the Liverpool Chemists' Association was opened on October 9, when the President (Mr. Edward Davies) gave an inaugural address a paper on "The Relation of Chemistry to Health."

***

The attempt to get a Pharmacy Board for Queensland, similar to the Boards which have been appointed in other of the Australasian Colonies, has been again defeated in the Queensland Parliament, in consequence, it would seem, of the jealousy of the medical profession.

***

Dr. Timothy Lewis, of the Army Medical Department, who has had a long experience of cholera in India, has published a memorandum, based on direct investigation at Marseilles, in which he asserts that the "comma-shaped bacillus," which has been declared by Dr. Koch to be the cause of cholera and never to be found except in cholera cases, may be discovered in the saliva of perfectly healthy persons. Dr. Koch's bacillus theory is at present somewhat discredited.

***

We publish inaugural addresses to students of pharmacy—one delivered by Mr Thiselton Dyer to the Bloomsbury Square School, and the other by Mr. Joseph Ince to the South London School.

***

At the annual meeting of the Zoedone Company, held on October 9, severe comments were passed on the conduct of the promoters and original directors, and some talk of legal proceedings was indulged in. The nominal value of the shares was reduced from 20s. to 5s. each.

***

Another robbery of medicines has been brought to light, Messrs. Thompson, Millard & Co. being the victims.

***

Readers interested in homœopathy will find several articles on that subject. From Dr. Hayward's address, as President of the British Homœopathic Congress, we extract a lucid sketch of the "germ" theory, and its effect on medical practice. We give a portion of Dr. Pope's Hahnemann oration; and we print an original article in which Dr. W. B. A. Scott, formerly a practising homœopathic physician and a writer in their journals, gives his reasons for withdrawing from them as a sect.

***

We give a sketch and particulars of a poison-case which was exhibited and described at the last meeting of the American Pharmaceutical Association. Whether this or another method be adopted by chemists, it is certainly desirable that some carefully-thought-out system should exist in every pharmacy where deadly drugs must of necessity be kept.

***

The Government of Victoria has just increased the duty on imported perfume spirit from 20s. to 24s. per gallon.

Pharmacalia.

The Opening of the Session.

Time has once more brought us round to the renewal of those medical studies of which pharmacy is a branch. Year by year it assumes a more definite character; and the period is not far distant when both in teaching and in practice it will occupy an independent place. At Bloomsbury Square, where official pharmacy is enshrined, history was seen to repeat itself; there was the same crowd of visitors and friends to welcome successful candidates; the same band of young aspirants who had gained distinction; the same professorial congratulations: and a lecturer not unknown to fame, who gave the accustomed introductory address. One thing more was a reminiscence of the past, the total want of ventilation in a theatre whose limits of accommodation are so easily reached.

One missed two familiar faces, whose absence we regret, and without whom these anniversary proceedings appear incomplete: Mr. T. Hyde Hills, and the late secretary, Mr. Elias Bremridge. Change is written upon all things, but this is an alteration we would willingly have postponed for many sessions yet to come.

Professor Redwood alluded in graceful terms to the aid which he had received during the past year in the enlargement of his own lecturing department, and to the wider scope both of chemistry and pharmacy now offered to the student.

Professor Bentley, whose rising is always the signal for the friendliest demonstration, showed signs of being on the eve of producing a brand new speech.

A section of the audience felt some emotion at the circumstance, prompted somewhat by surprise. He said that the President was an enterprising Alpine climber, fond of original research in the way of peaks and mountains. For him it would no doubt be possible to discover new routes for his excursions, and fresh paths, which would lead him into Switzerland. But a professor who was tied down to one particular subject like botany and materia medica, found it difficult to invest his observations with any variety of expression. What he would say then was, that from remotest times, say the Heptarchy—no, Mr. President, may I be allowed to correct that statement—I would refer to the period of the first invasion of Julius Cæsar on the shores of Britain; there had been students, some of whom undoubtedly studied plants. But of all whom he had ever read of or seen, it had never been his good fortune to meet a more orderly, diligent, conscientious class than those who had attended during the session at Bloomsbury Square. At the gardens in the Regent's Park their conduct had been irreproachable; they had never trifled with the coloured lamps on *fête* days, nor imposed upon the feelings of the ducks on the ornamental water. To these words, which are not reported quite verbatim, we may add, that if the professor is unable always to coin new methods of expression, his students are equally unable to place themselves under more admirable direction.

Then came Professor Attfield, who knows how to speak and what to say. He implored his young auditors to support the honour of the class to which they belonged by a more hearty cultivation of athletic sports.

The ablest student, devoted to his scientific work, need not think it beneath his dignity to be excellent at cricket and good all round at football. Such sports formed a manly training for the body; and that fitted a man all the better to work with his brain. While students they should devote some portion of their time to healthful recreation, and that would save them in after life from being the too-willing slaves of long hours and counter-drudgery. May those who have listened never know the dead loss incurred by having been shut out from these invigorating pastimes!

The address was delivered by Mr. Thiselton Dyer, whose name is associated in the world of science with botanical research. It merits careful reading, and as a printed contribution appears to greater advantage than it did during the delivery, for the speaker shunned the art of making points, and trusted little to mechanical composition. It bore on many topics, on some of which the lecturer is an undoubted authority—so far it deserves the praise accorded to it in a leading public journal, and elsewhere.

With deference be it spoken, the concluding section did not meet the wants of the audience to which it was immediately addressed; nor did it enlist their sympathies. We are not to be interpreted as reflecting on the abstract value of Mr. Dyer's philosophical remarks; we are merely asserting the claims of time and place.

It is therefore with unfeigned pleasure, for never was criticism more unwillingly offered, that we turn to the opening passages, in which the lecturer trod on certain ground. The examination system, with its advantages and necessary failings, was well discussed, as well as the rise of practical instruction which marks the present age. The degree of the development of the latter was little short of amazing. Laboratories were multiplied, so as to place facilities of learning within the reach of the younger generation which excited at once the envy and the admiration of their predecessors. Indeed, the difficulties experienced by a student were almost too elaborately smoothed out of his path.

In proceeding to give reasons for pharmacists to provide themselves with a good pharmaceutical equipment, Mr. Dyer's address was admirable and to the point. The speaker was less happy when he diverged into details, expressed in a more or less conventional manner, respecting the operations of the Royal Gardens, Kew, and suggestions for a great and comprehensive university organisation for the higher studies, which ought to have its seat in London.

A set of pharmaceutical students fresh from the country, and with a definite career, evinced small interest in the probable future of the Gresham College, or in the foundation of a London University.

The students of the opening session would fail in their required duties if they were led to the careful study of remedies in use by savage or partially-civilised races.

One statement, as practical pharmacists, we are inclined to doubt—"that an unfortunate obstacle comes, however, in the way, in the shape of the fact that there is in this country surprisingly little disposition to engage in the investigation of new remedies. The study of rational therapeutics can hardly be said to exist; at the most it is attacked in a disconnected or spasmodic fashion by men who have too much else to do." Experience seems to point in a totally different direction. For years there has been a mania for the introduction of new remedies, chiefly based upon empirical qualifications; while now the most hopeful sign of modern pharmacy is the ardour with which research is conducted, so that drugs which have had their reputation based upon mystery and tradition should either enter into rational therapeutics or be rejected.

We are amongst the number of those who are of opinion that the best interests of pharmacy are promoted by the society which is its representative remaining in an independent position. Once let that society merge into a branch of a collegiate university, and though its science might be theoretically advanced, the trade interest, which is inseparable from its constitution, must suffer; be neglected or ignored. A pure scientist like Mr. Dyer is not conscious of

the bearing of these facts ; but, recognising as we do a practical and not an ideal pharmacy, we are content to agree with Lord Bacon, and in this instance to let well alone.

Extract of Cannabis Indica.

Dr. Squibb has done good service in investigating the charge made by Mr. Henry Maclagan that manufacturers, either from ignorance or by design, communicate a green colour to the extract of cannabis indica by means of metallic copper. It was, moreover, stated in conclusion, that this extract cannot be of a green colour without being contaminated by copper. These are serious allegations, easily made and with difficulty refuted; and the doctor, being himself a manufacturer of one of the greenest extracts in the market, naturally felt alarmed. The circumstance had been overlooked that a drug containing a large proportion of green chlorophyll might yield to a good solvent a green extract, the depth of the colour being proportionate to the amount of chlorophyll which escapes the drying and heating process unchanged. The greenness, therefore, is natural to extract of cannabis indica. Yet this does not prove that some of the green colour may not be caused by copper salts, or that they may not be present in hurtful quantity; to determine the point accurate experiments must be made, and such as can be repeated by others.

Most drugs contain normal traces of copper and iron which cannot practically be avoided, but the contamination ceases to be normal when the limit of a mere trace has been exceeded. The use of copper vessels determines the presence of a trace of metal, and safety is endangered where reactions take place which bring the metal *into* the products in injurious quantity.

In Indian hemp the seeds are ripe, or partially so, and they contain a large proportion of oil, which readily splits up in contact with metallic oxides and some metallic salts, the oleic acid combining with the metallic oxide. Oleate of copper is intensely green, and communicates deep colouration. The carefully-prepared alcoholic fluid extract of Indian hemp is of an intense brownish green colour, though never in contact with copper during its preparation. This is transferred to a bright copper still, and the alcohol recovered for fresh use. From the still the thin alcoholic extract is transferred to porcelain shallow dishes, and carefully evaporated to a proper consistence. The question to be decided is whether the resulting extract of an intense olive-green colour contains copper, and how much.

By very careful manipulation, full details of which are given, a solution was prepared for qualitative testing. Ammonia gave no discoverable blue tint; sulphuretted hydrogen deepened the brown tint, but gave no precipitate on standing twenty-four hours. Hager's test for traces of copper by reduction on a steel needle spirally wound with platinum wire, and suspended in an acidulated solution by the wire, gave a very distinct film of copper, both upon the needle and the wire.

This test is sensitive to 1 part of copper in 20,000 parts of solution. These testings proved that copper was present in the extract, but in very small proportion.

On quantitative analysis the amount of metallic copper was so small that it could not be accurately weighed on the balance taken for the purpose, but it was known to be less than half a milligramme. If accepted as being half a milligramme, the proportion of copper would be 1 in 3,700, or ·027 per cent. Each medium dose of 2 grains of the extract would contain ·00074 grain of copper—an amount probably exceeded in the food of every meal of every day. But it was essential to examine the definite statement that extract of Indian hemp "cannot be of a green colour without being contaminated with copper." The fluid extract from which the solid is prepared stood even Hager's test, and may, therefore, be pronounced pure. This in a minutely careful way was reduced in a glass retort to a thin extract, and finished off in a porcelain capsule. It was of a beautiful green colour, the chlorophyll not having been injured during evaporation. When placed beside the original stock extract, which contained the traces of copper, no difference in colour was perceptible. Both were of so very dark a green that they appeared black or greenish black.

The conclusion arrived at by Dr. Squibb after elaborate testings, which it would be tedious to enumerate, was that the small amount of copper present in the ordinary extract has some influence in preventing or retarding the change of colour in the green chlorophyll, but yet that an extract of cannabis indica can be of a green colour without being contaminated with copper.

From the above it appears that a trace of copper is present in extract of cannabis indica in an analytical sense, but in no other. Secondly, that a green colour is natural to the extract. Thirdly, that the green colour is not due to copper, and can be present when there is not the faintest contamination. Fourthly, that the use of a glass retort, instead of one of copper, would probably be an improvement. Finally, that Dr. Squibb is entitled to great praise in having treated the whole matter with punctilious honour.

The Contagious Character of Cholera.

A very remarkable statement has been made by Ricord respecting cholera, and it is so important that it may be repeated here. He said:—"I first had to deal with cholera in 1832 in a Paris hospital, where I was left alone in charge of 600 patients, my two colleagues having run away in a fit of panic. I took note of the fact that not a single non-choleraic patient caught the disease, and that the doctors, house surgeons, attendants, and nurses who attended to the cholera cases exclusively enjoyed complete exemption from the disease. This convinced me that the cholera could not be contagious, and I have seen no reason to change my conviction, namely, that cholera breaks out spontaneously in given localities, and that quarantines are not only frivolous and vexatious, but positively dangerous. That cholera is generated spontaneously does not imply that it has not a special cause, and what that cause is I do not know. The only sensible quarantine would be that which would prevent a man in good health from migrating to a cholera centre. Common sense and prudence should suffice for that."

During one of the first and most fatal visitations of cholera in London we were engaged with several other assistants in the heaviest dispensing it has ever been our lot to witness. The ordinary routine of medical practice appeared paralysed, and cholera remedies alone to be prescribed. Laboratory work was stopped, except for the manufacture of aromatic spirits, anti-diarrhœa preparations, and distilled waters, such as peppermint and cinnamon. The last was made in large quantities. Every available bench and chair was brought into the pharmacy, and the men taken from their usual occupations had to help the assistants to the best of their ability. Perhaps a fully pre-occupied mind secures a degree of immunity from disease, or possibly where there is no fear there is less danger of contagion; but certain it is that none of those so engaged had the slightest premonitory symptom, and they enjoyed perfect health throughout the epidemic.

The Pharmaceutical Council.

THE Council met on October 1. Mr. Carteighe, president, was in the chair; and eighteen other members were present. The two absent were Messrs. Robbins and Woolley.

Before the business of the day was entered upon, the Vice-President (Mr. S. R. Atkins) gave some account of a recent

Visit to Denmark

he had made, in order to aeknowledge the marked kindness which had been shown to him by Mr. Madsen, of Copenhagen, and Mr. Lotze, of Odense, both very eminent pharmacists. Mr. Atkins considered the attentions paid to him were due to his connection with the Pharmaeeutical Society. Mr. Madsen has a splendid establishment in Copenhagen, which it is worth the journey to visit. He has recently expended some thousands of pounds on his laboratories. Mr. Lotze has a large dispensing business, and is also one of the leading manufacturing chemists of Scandinavia. He is also a scientific botanist, and possesses splendid gardens and conservatories, wherein flowers and plants from all parts of the world are acclimatised. Mr. Atkins thought it right, having received such very marked attention, which must have been representative rather than personal, to make some public acknowledgment of it.

After the election of associates and apprentices of the Society, the names of the following persons which had been struck off the register were restored:—

Benjamin Crompton, 2 Fern Bank, Moston Lane, Moston, near Manchester;

Samuel Charles Newman, Bristol;

Robert Brady Wade, Southdown Road, Shoreham.

In each case a fine of 1*l.* 1*s.* had been paid.

The name of James Andrew Davis, Anderton Road, Sparkbrook, Birmingham, was added to the register, the neeessary legalities having been fulfilled.

Benevolent Fund.

One grant of 10*l.* and two of 5*l.* were made to widows of registered chemists and druggists; and 10*l.* was voted towards the support of the Isherwood orphans.

Two annuitants had died during the year, and 39 remained. Of these, 30 receive 35*l.*, and 9 receive 30*l.* a year; making a total expenditure of 1,320*l.* per annum. The Committee recommended that 6 men annuitants might be elected in December next; and they recommended 12 candidates, including 2 who were unsuccessful last year.

The Vice-President, who moved the adoption of the recommendations, said the fund would be taxed to the utmost, and he would therefore appeal all the more earnestly for help. The twelve candidates selected did not represent the amount of need.

Mr. Bottle and Mr. Savage supported the policy, as also did Mr. Hampson; but the last-named gentlemen expressed his regret that annuitants could not be selected without the ordeal of contest, which seemed to him a most cruel and painful process. He hoped in future the fund would be so well supported that they would be able to do away with this evil system.

Some protest was made by Mr. Richardson and Mr. Williams against Mr. Hampson's expression, which, however, he maintained; and the President said, when there were more funds, it might be possible to devise a less public way of distributing relief. The election was fixed for December 5.

The Pharmacy Act.

The solicitor reported that penalties of 5*l.* each had been paid for infringements of the Pharmacy Act by James Thorpe, 173 Rochdale Road, Bury, and W. Bakewell, grocer, Sudbury, near Derby. Several other cases had been brought before the General Purposes Committee, and one had been recommended for prosecution; consideration of the others being postponed for further information. The Council confirmed the recommendation.

The North British Branch.

The President reported on behalf of a special committee that the Society's new premises in Edinburgh were approaching completion. Their friends in the North wished to celebrate the opening by a conversazione. The house was large, and would accommodate some 500 persons. It was proposed to hold the conversazione about the middle of November.

Mr. Schacht suggested the possibility of postponing the conversazione till next year, when probably a good many would be going to Aberdeen. Mr. Young, the President, and others, however, considered that it would be undesirable to postpone the event for so long; and it was resolved that the conversazione should take place as proposed.

Pharmacy Legislation.

The Council again went into committee, and discussed at some length the prospects of pharmaceutical legislation; but no resolution was moved.

Pharmaceutical Society of Ireland.

ANNUAL GENERAL MEETING.

THE annual meeting of this Society was held on October 6 at 11 Hareourt Street, Dublin. The chair was taken by the President, Mr. J. E. Brunker, M.A.

The President, in addressing the meeting, said he thought he might congratulate the Society on having made some progress. Though he could not say that the Society had advanced by "leaps and bounds," and though he had to regret that some objects which they had in view last year had not yet been accomplished, there were some satisfactory points in the present position. In the first place, the number of candidates who had presented themselves for examination showed a considerable increase on the previous year. The numbers were—

	Candidates	Passed
1882-83	17	13
1883-84	34	30

It was to be noticed, however, that the number of young men presenting themselves for the Preliminary examination showed a falling-off—

	Candidates	Passed
1882-83	44	37
1883-84	25	20

This would be a rather serious circumstance, if it were not that other examinations are accepted in lieu of the Preliminary.

Next, with regard to the examinations themselves, the Council had given some attention to increasing their efficiency, and in this they had been well supported by the examiners. The examination for the licences is now extended over three days, and is made more practical and searching than before; and it might be safely said that gentlemen who obtain the licence are fully qualified to take their place amongst the pharmacists of the United Kingdom. The President did not mean to say that they had yet reached, or nearly reached, the high standard required for the Major qualification in Great Britain; but they were able to supply men fully qualified to supply the wants of a comparatively poor country, and had fixed a standard quite as high as the existing educational opportunities of the country would admit of.

They could not yet afford to support schools of pharmacy such as are to be found in the sister kingdom, and there is an almost total absence of general technical schools where young men could avail themselves of practical instruction in chemistry and physics.

He regretted that the hope of legislation on the subject of the sale of poisons, which last year appeared to be within measurable distance, had been disappointed. Until something is done to bring the retailer of poisons under some control, not only will the position of the pharmacist be unsatisfactory, but the safety of the public will be seriously endangered. Personally, he regretted the decision of the Council with reference to the licensing of druggists for the sale of poisons (other than those whose rights are secured under our Act), because he considered that the licensing of such men, with proper safeguards as to their education and practical knowledge, would be a decided advantage to the public, but that decision having been arrived at, they should

lose no opportunity of pressing Government for power to register those whose rights are reserved under their very imperfect Act, and putting them under some surveillance.

The Council had urged the extension to Ireland of the regulations affecting the sale of patent medicines containing poisons, which, it was understood, were to be prepared by Government. They had joined the Pharmaceutical Society of Great Britain in urging the claim of the pharmacists of these countries to a responsible share in the preparation of the national Pharmacopœia.

The President referred to the disappointment which their past registrar had occasioned them, to the liberal treatment they had received from the Pharmaceutical Society of Great Britain, and finally expressed his regret at the collapse of their evening meetings, and his hope that some attempt would be made to revive them.

The Hon. Treasurer (Mr. Hodgson) presented his annual account. The balance in bank at commencement of year was 62*l.* He regretted that the income from examinations showed a considerable falling-off, being only 181*l.* 13*s.*, compared with 212*l.* 2*s.* for the preceding year. Members' subscriptions amounted to 53*l.* 11*s.*, precisely the same as last year. Amount of stock sold to defray cost of furnishing the Society's new rooms came to 159*l.* 18*s.* 1*d.* The sum of 15*l.* 14*s.* 11*d.* was received as dividends on stock. Other items brought the income for the year up to 474*l.* 1*s.* 6*d.* The expenditure included 42*l.* 10*s.* 6*d.* to the examiners; 19*l.* 19*s.* fees returned; 43*l.* salary to late registrar; 5*l.* 14*s.* 5*d.* postage; 70*l.* for rent; 33*l.* 11*s.* 10*d.* for *Pharmaceutical Journal*; 11*l.* 5*s.* for office attendant; 12*l.* 12*s.* for reporting of the meetings; 4*l.* 1*s.* 11*d.* for stationery and advertising; and 164*l.* 17*s.* 2*d.* for furnishing rooms; showing a balance of 56*l.* 15*s.* 2*d.* to the Society's credit. He regretted, however, that owing to the misappropriation of the Society's moneys by their late registrar, the amount in bank was only 17*l.* 18*s.* 2*d.*, showing a deficit of 38*l.* 17*s.* The greater portion of this consisted of members' subscriptions, and on it being observed that an unusual number were still due, Mr. Fennell was instructed to apply for them. He then acknowledged having received subscriptions and fees which he had failed to lodge. He was unable to say yet how far the little property they had secured from Fennell would go towards wiping out the deficit; but he might say that on a rough calculation it is estimated that at least 25*l.* will be saved. The item of 70*l.* for rent included six months' rent due to the College of Physicians; there will be 20*l.* less in next account. Also the item of 33*l.* 11*s.* 10*d.* for the *Pharmaceutical Journal* is to be reduced to 20*l.*

All the outgoing members of the Council were re-elected.

The various officers and committees having been unanimously re-elected,

The proceedings terminated.

Metropolitan Reports.

Robbery of Medicines.

On Sept. 26, at Worship Street Police Court, Thomas Fitzgerald, 34, traveller, of Warner Place, S., and Robert Dodds, 38, traveller, of Mann Street, Walworth, were charged with being concerned with another not in custody with stealing a packet of patent medicines, pills, &c., the property of Messrs. Thompson, Millard & Co., druggists, of Curtain Road, Shoreditch. Mr. Geoghegan, barrister, appeared to prosecute, and Mr. Moore, solicitor, defended. Mr. Geoghegan said that the prisoners were first charged with the unlawful possession of the property. It was discovered, however, by private marks on some of the boxes, that they belonged to the prosecutors, and the prisoners were recharged with larceny. It had been represented to him by the solicitor defending that the prisoners would plead guilty to a charge of unlawful possession, and this plea the prosecution would accept, for the purpose of shortening the proceedings. If the graver charge were gone into a large number of chemists and others would have to be taken away from business to prove that the boxes of pills in question had not been sold by them to either of the prisoners, and that difficulty was recognised by the police. While accepting the plea, however, he thought it right to state that the prosecutors had had stolen from them within the last six months property value fully 1,000*l.* The goods were principally boxes of pills, and they were conveyed from the warehouse by a person whom the police were unable to detect, although Detective Inspector Bannerman and Sergeant Masey, of Scotland Yard, had kept special watch over the movements of the workmen. At all events, the prisoners were suspected of receiving some of the property, and a constable followed them to a public-house in Clerkenwell. Here Dodds handed to Fitzgerald a large package, and, when this was seized on the prisoners being apprehended, it was found to contain pills and small bottles of medicine. There was a certain private mark on some of the pill-boxes which enabled the prosecutors to identify them as their property. There was also a witness, who had seen the prisoners in public-houses in company with workmen in the prosecutors' employ. The prisoners having formally pleaded guilty to the charge of unlawful possession, Mr. Moore addressed the Court for mitigation of the sentence. Mr. Bushby said the statement made by counsel indicated that a great systematic robbery had been nearly successfully carried out, and it was a serious matter for the prosecutors. He could not inflict less punishment upon each prisoner than two months' hard labour.

Provincial Reports.

BIRMINGHAM.

Notes Written for The Chemist and Druggist.

The Social Science Congress held their annual meetings here last month. The only paper read at all bearing on chemists was, "An Epidemic of Suicides," but no preventive or precautionary measures were suggested.

The other day a young man went into the shop of Mr. Williams, oil merchant and druggist, Broad Street, and asked for some arnica, Russian salve, carbolic acid, Davis' pain-killer, and a package of sticking-plaster. The chemist thought somebody was seriously hurt, but the customer explained he was only taking a few prudential measures before mounting his "bike" (bicycle).

Mr. William Long, chemist, &c., 103 Coleshill Street, has disposed of his business to Mr. G. Venables, late dispenser to the Birmingham Eye Hospital.

Mr. T. Beech, Upper Mary Street, Balsall Heath, has opened a branch at King's Heath.

Mr. J. Beech (brother to the above), 352 Monument Road, has opened a branch at 284 St. Vincent Street, Ladywood.

Mr. William Price, pharmaceutical chemist, 157 Bromsgrove Street, has been appointed one of the "overseers" for the parish of Birmingham.

Accidents and Suicides.—A young woman named Alice Freath was taken to the General Hospital (and detained) suffering from burns on the neck, arms, and hands, caused by some sulphuric acid being accidentally spilled over her whilst at work.—A most determined case of suicide of a German gentleman, named Ernest Koch, occurred in this town a few days ago. He deliberately broke the neck off a bottle (containing prussic acid) with his teeth, swallowing part of the bottle with the contents, and dying almost instantly. No evidence was forthcoming at the inquest explaining how he came possessed of the poison.—Miss Emily Guy, 22 years of age, fatal poisoning with supposed cyanide of potash. Inquest adjourned for post-mortem, and medical examination of the cup from which deceased drank the poison.

At an inquest held on the body of a man named Amos Kings, aged 28, the wife of the deceased said her husband had been afflicted with asthma for years, and had been treated by Mr. Gibbs, surgeon, Digbeth. Recently he had been out of work, and could not afford to pay a medical man. On Sunday night she went to Mr. Lear's, chemist, and asked for a sleeping draught. Mr. Lear gave her one, which she took home and gave to her husband. He went off quietly to sleep, and when witness woke about one o'clock she found that her husband was dead. George H. Lear said that the last witness came to his shop, and asked for a sleeping draught. He told her there was some risk in giving an opiate to a person who

was suffering from a throat affection. He, however, made up a draught containing from 15 to 20 drops of opium and other ingredients. Mr. Hugh Thomas, surgeon, said that the deceased had died from syncope, caused by chronic bronchitis and asthma, brought about by enervation of the throat. In reply to the coroner, Mr. Thomas said death might have been accelerated by the sleeping draught. A verdict of "Natural death" was returned.

John Evans (78), Monument Road, obtained a mixture, containing laudanum, from a neighbouring chemist. Not being able to sleep he took some. His daughter, finding him still awake a few hours later, advised him to take another dose, which he did. She then left him. Upon going to see him again she found him dead and all the mixture taken. A medical man stated that death occurred from narcotic poisoning. The jury returned a verdict, "Death by misadventure."

Christopher Whittem (47), Henley Green, near Coventry, suffered acute rheumatic gout, and while in great pain inadvertently drank some poisonous liniment, composed of aconite and chloroform, which produced convulsions, deceased dying in great agony. The jury returned verdict, "Death by misadventure."

Mr. John Henry Dixon Jenkinson, chemist and "poultry hospital proprietor," charged a boy at the West Bromwich Police Court with having neglected his work and stolen 2*d*. The prosecutor said he had employed the boy for a month, and he left without notice. He then enumerated various small offences that he alleged the boy had committed, and stated that he had the boy before him and charged him with stealing 2*d*., embezzling 7*d*., stealing two young pigeons, stealing sixteen penny postage stamps, and "being in his (prosecutor's) loft with pigeons in his hands, where he had no right to be." The boy denied all the charges.—The Magistrates' Clerk asked the prosecutor if he had not endeavoured to make some arrangement with the boy's father. Prosecutor: I offered to take a sovereign for loss, cost of advertising, and bother in getting another boy and trouble in ascertaining his character. (Laughter.) Prosecutor's witnesses were not present to prove the case, and the Bench dismissed it. Prosecutor: But what about the giving of notice? The Clerk: There is nothing in that. You have no agreement with him about notice.

It may not be generally known that Birmingham possesses two lady dispensers—one employed at the Women's Hospital, the other at the Skin and Lock Hospital.

The "plague of flies," so troublesome at this time of the year, has caused the following remedy to be forwarded to one of our daily papers, and we can speak of its satisfactory results:—"Take a piece of thin twine long enough to go across the room, put two loops to fasten on two tacks, make into a thin line to go across the room at a height of about 7 feet, get some bird-lime and twist it on the line very thinly; the best way is to fasten one end of the line, then twist the bird-lime round it, then loop it up. In a few hours you will have the line covered with flies; you can clear any quantity off in two days."

BURSLEM.

A Chemist Charged with Fraud.—This month, at the Police Court, William Shirley, chemist, Nile Street, was charged with having obtained by false pretences a quantity of sponges, of the value of 29*l*. 10*s*., with intent to cheat and defraud Isaac Lialter, sponge merchant, Mile End Road, London. Mr. Paine appeared for the prosecution, and Mr. Alcock for the defendant. Evidence was adduced showing that while the prosecutor's traveller, Julius Leven, was calling on customers in the district he received a message from the defendant, and went to his shop on June 10. The defendant then said his brother was general manager at Messrs. Davenport's manufactory, Longport, and would take sponges from the prosecutor through him (defendant) if he could get them cheap. Levin had with him a case of sponges, weighing 118 lbs. net, which he offered at 5*s*. 6*d*. per lb., at three months. Defendant said he would send the sponges to his brother, and get a cheque for the amount at once, and on the strength of this statement Levin left the sponges, and made out a bill in the defendant's name for 29*l*. 10*s*., charging 5*s*. a lb. On his next journey, in July, Levin called for the money, and defendant said his brother had been busy stock-taking, and could not take the sponges into stock until that was completed. He (defendant) would not be able to get a cheque until the middle of August. Levin believed the statement, and left the account over until his next journey, in September. On September 15 he called again, but could not get payment, and he then made inquiries, which induced him to take proceedings. Mr. John Shirley, manager at Messrs. Davenport's, said he was not on friendly terms with the defendant, and had not spoken to him for twelve months. In August he was told by a man named Cliffe that his brother wanted to sell some sponges to enable him to pay his rent. He refused to have any transaction with the defendant, but told Cliffe if he would buy the sponges he would take some of them if they suited. He bought sponges from Cliffe to the value of 11*l*. 10*s*., at the rate of 5*s*. per lb. Levin said he had refused to deal with the defendant except for cash, and he should not have trusted him but for the representations that the sponges were for his brother. For the defence Mr. Alcock contended that there was no case, and characterised the prosecution as a scandalous attempt to obtain payment of a debt by criminal proceedings. The defendant was committed for trial at Stafford Quarter Sessions, and allowed bail.

HANLEY.

The Wholesale Trade.—Joseph William Knowles and Alfred Andrews entered into partnership in April, 1883, as "wholesale druggists" at Etruria. Andrews contributed 15*l*. towards the capital, and Knowles brought 5*l*. in cash, a case of dental instruments worth 5*l*., a receipt-book, and the means of obtaining credit through his father. They were to equally share the profits of the business, which had been fairly successful, and until about a fortnight ago there was no unpleasantness. Some quarrels arose, and Knowles wanted Andrews to sign an agreement to dissolve, but the latter refused. Knowles therefore carried off the ledger and day-books, all the order-books except one, 14*l*. 6*s*. 6*d*. in money, a 2*l*. cheque, a set of harness worth 35*s*., and some other property. Andrews obtained a warrant against his partner, and the case came before the magistrates last week. The Bench considered the case one for a civil rather than a criminal court, and dismissed it.

HAWICK.

Hawick Pharmaceutical and Chemical Association.

The first general meeting of the session was held on Friday, September 26, when there was a fair attendance. In the absence of the President, Mr. Dechan was called to the chair.

Mr. W. P. Kennedy, science teacher, delivered a lecture on "The Eye and Vision." Commencing with the anatomy of the eye, the lecturer described in detail the structure and functions of the sclerotic coat, cornea, optic nerve, choroid coat, crystalline lens, pupil, iris, and retina. He referred to Helmholtz's discovery of the method by which the eye adjusts itself so as to focus near or distant objects in succession with almost instantaneous rapidity, and gave interesting details regarding the blind spot, the yellow spot, short and long sight, optical illusions, and the influence of the imagination in the interpretation of the images on the retina. Quoting Helmholtz's remark that if any maker had sent an instrument so full of defects as the eye he would have returned it, Mr. Kennedy showed that what the great German considered defects were, from other points of view, really very necessary.

The lecture, which was very comprehensive and most instructive, was illustrated by means of models and diagrams, a number of the latter being shown on the screen by means of the lime-light.

Mr. Maben, in proposing a vote of thanks to the lecturer, urged all the members of the Association to attend at least two science classes during the forthcoming session. They in Hawick were peculiarly fortunate in having a series of classes under the Science and Art Department such as, he was sure, no other town in Great Britain (of the same population) could boast of, and this happy state of affairs was mainly due to the energy of the lecturer of the evening, Mr. Kennedy. Classes would be inaugurated in the following week on inorganic chemistry, organic chemistry, practical chemistry, magnetism and electricity, mathematics, geology, physiography, physiology, and hygiene, besides several technological

classes under the City and Guilds of London Institute. Every one of these subjects was of very great importance to pharmaceutical and chemical students, and if the members of that Association failed to take advantage of the opportunities within their reach they would regret it all their days.

The vote of thanks having been awarded, Mr. Kennedy briefly replied, remarking that Mr. Maben was one of those who took a leading share in the starting of the science classes upwards of ten years ago.

The second meeting of the session was held on the evening of October 14. There was a very large attendance, the chair being occupied by the Vice-President, Mr. Donaldson. The business before the meeting consisted of a lecture on "Organic Analysis" by Mr. M. Dechan, analytical chemist.

Mr. Dechan began by contrasting the analysis of inorganic with that of organic compounds, and then went on to give a short historical sketch of the methods by which the composition of the latter was formerly investigated. Though many of these methods appeared in the present day crude in themselves, yet they were not unworthy the attention of students, for without them as a groundwork chemists would never have been able to build up the more elaborate processes they now possessed. The process adopted in the ultimate analysis of organic bodies was known by the term combustion, which differed from the old ignition, in that they now collected the products of combustion, whereas formerly these were allowed to escape in the form of invisible matter. Proceeding to explain how these products were collected, the lecturer showed experimentally that, under the conditions in which combustions are carried on, the carbon and hydrogen of organic bodies unite with oxygen to form CO_2 and H_2O respectively, and from these the original proportion of C and H were calculated. He explained the processes by which hydrocarbons and carbohydrates were analysed, and then referred in detail to the methods adopted for the estimation of the nitrogen in proteids. The various apparatus used in organic analysis were shown and described, and several experiments were performed, in order to illustrate particular points of the lecture.

Mr. Dechan was listened to throughout with close attention, and at the close received a hearty vote of thanks.

OLDHAM.

Oldham Chemists' Assistants' and Apprentices' Association.

At a meeting of the above Association, held in their room, Church Institute, on September 23, Mr. Whitworth, of Shaw, read a paper on "Pharmacopœias, Past and Present."

Mr. Whitworth spoke at length on the practice, in former years, of the use of such medicines as oil of swallows, oil of bricks, vipers, &c., and traced the progress of British Pharmacopœias to the present date, noting the omission of such articles as the above, and the introduction of drugs by reason of their therapeutical action rather than their association with superstition.

The paper throughout was most interesting, and was followed by a discussion, in which Messrs. A. E. Martin, A. Smith, B. Swinbourne, R. Marlor, and others took part, the latter gentleman remarking that he was frequently asked, at the present time, for "mithridate," as an ingredient in cattle medicine. A vote of thanks to the essayist brought the meeting to a close. Mr. A. E. Martin, president, occupied the chair.

Death from Taking Prussic Acid.—On October 9 an inquest was held on the body of Frank Bottomley (25) veterinary surgeon, who was found dead early the previous morning with an empty prussic-acid bottle beside him. Deceased had been out all the previous night, and was the worse for drink when he returned home at 2.30 A.M. He was admitted by his father, and was left in the kitchen. He was heard to go to the cellar where his drugs were kept. A few minutes later he called out, and his brother found him speechless on the floor. His father went for a doctor and returned within half an hour, shortly after which he died. An empty prussic-acid bottle was found near him. He was not known to be in the habit of taking anything to recover himself from the effects of drink. No further important evidence was addueed, and the jury returned a verdiet of "Death from misadventure," believing that the deccased had taken an overdose of poison accidentally.

BELFAST.

Modern Prices.—The following squib has been circulated in this city. It is consolatory to find that any one remains who can take the competition cheerfully:—

MUGGINS, GUBBINS, M'PHOOL & CO.,

General Merchants,

In a fit of Con-temporary Insanity, are prepared to supply and sell for the "R. M. D." (which is very needful) all Patient Medissins fresh and free from salt, at the following, aftersaid, ludicrous, and rediculously low, mean, cowardly, chape retail prices.

Electrick attentiou given to orders sent by Tell-a-phone or Tell-a-Cram from the most remote parts of the Queendom, and carriage paid to them parts on resate of Ha'penny Stamps and New Postal Orders for small sums such as Half-a-Crown and the like of that.

To be taken cum grano salis.

	Our Price!	Enny other buddy's Price.
Allcock's Holy Plasthers	0 3½	1 0
Allen's Sillybald-somethiug	0 2½	3 6
Ditto's Hair Splitter	2 1½	6 0
Beecham's Worth a Guinea a Box Pills	0 1½	1 1½
Brandeath's Glory Pills	0 1½	1 1½
Brown's Barkin' Thrushes	0 1½	1 1½
Buntie's Nerve Tightener	0 1½	1 1½
Budden's Balsam of Whorehound	0 1½	1 1½
Clarke's B 41 Quare Good Pills	2 1½	4 6
Choke Marrowfat	0 2	1 1½
Clarke's Bloody Mixture	1 1½	2 6
Cockle's Oyster-brain Pills	0 1½	1 1½
Calcraft's Tooth Whitener	0 1½	1 0
Davey's Giant Pain Killer	0 1½	1 1½
De St. Jongh Cobain's Cod Oil	0 2½	2 6
De Lard's Corn and Bunion Plasthers	0 1½	1 1½
Eno's Fruit of Salt	0 2½	2 9
Fenuing's Freezing Powdthers	0 1½	1 1½
General Chinese Gordon's Ex. out of Khartoun	0 2½	2 0½
Grillon's Tammy Indian	0 2	2 6
Hoff's Bottle o' Porther Malt Extrakt	0 7½	1 9
Holloway's Pills—Jenyouwine	0 1¼	1 1½
Hop Bitters and Mithylated Spirits	0 3	4 6
Knave's Food	0 2½	1 0
Kay's Ess. of Flaxseed	0 1½	1 1½
Lowcock's Pullmoney Wafers	0 1½	1 1½
Lie-big Coy's Ex. Meat, 2 & 4 oz.	0 2½	3 0
Lockyer's Man-in-the-Moon's Hair Wash	0 3	1 6
Morison's Health Exhibition Pills	0 1½	1 1½
Nestle's Milk-a-Way Food	0 2½	1 0
Parr's Long-Life-to-ye Pills	0 1½	1 1½
Pepper's Mustard Plasthers	0 2	1 6
Pepper's Idolized Taraxacums, Podophylums, and other Snakes	0 3½ / 0 4½	2 9
Quare Things for Warts and Chillblains	0 2½	2 6
Rooke's Merry Thonght Elixir	0 3	4 6
Rowland's M'Assos Oil	0 2½	2 6
Ditto's Oh, Dont!	0 3	2 9
Seigel's Grandmother's Syrup	0 2½	2 6
Tickle-yer-Heel	0 1½	1 1½
Towle's Virgin Pills	0 1½	1 1½
Townsend's Good Old Jacob Sarsappyrillar	0 2½	2 6
Winslow's Soothin' Syrup for Crabbit Weans	0 1½	1 1½
Woodcock's High Wind Pills for anybuddy troubled with a hurricane in the stomach	0 2	1 1½
Widow Welch's Male and Female's Wonderful Pills	0 1½	1 1½

et settheraa, q. s.

Comparisons are odious, but the above will show that we are the *Cheepest House* for sich stuff; and we supply Malt an' Hops and Lollipops; Rices, Spices; Hams and Jams; Teas, Cheese, and mixed Coffees; and any other article on equally prodigious terms.

P.S.—Some of the above-mentioned Goodies not more than five years in stock.

N.B.—Lower Prices daily expected.

☞ *A Shilling thrown off most of the thirteenpence ha'penny things.*

LIVERPOOL.

The Chemists' Association.

The annual meeting of the thirty-fifth session of the Liverpool Chemists' Association was held at the Royal Institution on September 25, under the presidency of Mr. Edward Davies, F.C.S., F.I.C. The annual report of the Council and the treasurer's financial statement showed the Association to be in a sound and promising condition.

After passing the usual votes of thanks to donors to the library and museum, and to authors of papers during the past session, the meeting proceeded to the election of four members of Council, the result being the election of Messrs. Conroy, Symes, Ward, and Woodcock.

A motion proposed by Mr. T. F. Abraham, and seconded by Dr. Symes, was carried after considerable discussion. The motion was that the rules be altered by the substitution of the words "Chemistry and Pharmacy" for "Chemical and Pharmaceutical Science," and the addition of the words, "and the interests of persons engaged in same." Both the proposer and seconder explained that the object was to admit of matters that were not strictly scientific. Such subjects were now tacitly permitted, but it was open to any member to object, and the adoption of the motion would bring the laws of the Association more in accord with its practice.

Another motion of which Mr. A. C. Abraham had given notice, concerning the laws of the Association, having been withdrawn, the meeting was brought to a close.

The first meeting of the thirty-sixth session was held on Thursday evening, October 9, when the president, Mr. Edward Davies, F.C.S., F.I.C, delivered his inaugural address. There was a good attendance, and the address was well received. A vote of thanks, proposed by Dr. Symes, seconded by Mr. Conroy, and supported by Mr. A. C. Abraham, was carried by acclamation.

Mr. Davies's address is printed below.

On the Relation of Chemistry to Health.

In its widest sense health is "a sound mind in a sound body," and although we have no medicine revealed by chemical science which can "minister to a mind diseased," yet on the health of the body depends in no small degree the proper discharge of the functions of both our mental and moral faculties. Though wonders have been wrought by those whose bodies have been weakened by disease, and displays of moral excellence have been shown in the very presence of death itself, the experience of us all is that it is when our bodies are in their most perfect state we can best exercise our minds, and that irritability of temper is most apt to reveal itself when disease has thrown our machinery out of order.

The various physical sciences—electricity, light, and heat—have all their relations to health, but chemistry is most intimately connected with a body formed of chemical substances, and whose various functions are in a great measure chemical processes.

Before chemistry as a science had an existence medicine was studied, and empirical remedies were discovered, mostly from the vegetable kingdom, which experience showed were of use in the treatment of diseases. Alchemy, among its other visions, sought for an elixir vitæ which should be a panacea for all diseases, and even ward off the attacks of death. Many of the alchemists affirmed that they had discovered such a universal medicine, but they could not prevent their own death, and gradually a more humble ambition arose to find out remedies for special disorders, and in this direction much was done. Day by day new remedies are proposed, and in conjunction with the wiser plan of prevention rather than cure, many lives are prolonged, and much suffering avoided.

Chemistry in relation to health may best be considered under the various heads of food, including water and air, medicine, disinfectants, dress, and dwellings.

Food.—Taken in its widest signification, this includes everything taken into the body in order that its functions may be properly carried on, and the waste arising from the animal processes repaired. Air is of all things that which is continually needed. We may endure thirst and hunger for a time, but deprivation of air speedily brings death. We are constantly taking in air, so that in one day about 30 lbs. of air, or, say, one-fifth of the weight of the body, is taken and breathed out again. By the air floating matters are brought in the closest contact with the body, injurious gaseous substances are taken into the blood, germs of disease come under the most favourable conditions for absorption, and everything shows the importance of having this prime necessary of life in the purest possible condition. What can chemistry do for us in this matter? When the composition of the air was first understood as consisting of oxygen and nitrogen, it was natural to suppose that the salubrity or otherwise of the air depended on the proportion of oxygen or "vital air." The rough means adopted in the analysis gave results varying to a considerable extent, and the theory received some support by rejecting those observations which opposed it, and accepting those which were in accordance with it. Hence the instrument was called a eudiometer.

As more exact methods came into use it was found that the differences in the composition of the air, as relates to the percentage of oxygen, were too small for to be readily determined, and, except in extreme cases, were of no practical importance. Attention has since been directed, with more success, to the determination of the CO_2, which admits of more easy and rapid estimation, and gives valuable information as to the suitability of the air in enclosed spaces, such as rooms and steerages of ships. As to the causes which affect the air outside we know little. Attempts have been made to determine the amount of organic matter in the air, and to collect the germs floating in it and cultivate them. The first has not yet given definite results, and the second is biological rather than chemical.

The only remaining factor directly affecting health in the air is the oxidising substance known generally as "ozone." Whether this substance is allotropic oxygen or not, and whether its influence is beneficial or injurious or inappreciable, are questions which are certainly not settled beyond the reach of doubt. The only direct evidence of a chemical nature with regard to true ozone is that it is injurious to health, but there is only the slightest evidence that the oxidising body in the air is ozone.

Water is the next most important substance used in food, and we are indebted to chemistry for information about its mineral constituents, its organic matters, and its metallic contaminations. The saline matters are usually little regarded, but as mineral waters often differ from ordinary drinking waters by the larger proportion of some saline constituent, I do not think that they ought to be disregarded. It seems generally admitted that a good water should not contain more than 30 grains of salts per gallon, and that there is a minimum below which it is undesirable to go, but we lack information as to the influence of a larger or smaller proportion of magnesian salts. When calcium or magnesium carbonate is too abundant, chemistry furnishes us with a simple means of softening the water with lime, at the same time removing part of the dissolved organic matter, but also taking away the free carbonic acid.

The question of filters, though partly mechanical, has also its chemical side. Ordinary filtration through porous materials, as sponge, sand, flannel, &c., only removes suspended matters, and those not perfectly, whilst those vegetable or animal matters which are retained by the filter soon undergo decomposition, and favour the development of low forms of life, rendering the protection supposed to be afforded a snare of the worst description. The trouble of continually replacing the filtering material is too great to allow of its being done with anything like a sufficient regularity, and in some filters the filtering material is almost inaccessible. Carbon, for a time, will no doubt remove much dissolved organic matter, but it soon loses its efficiency. Silicated carbon seems to be better, but the reduced iron filter has high recommendations. Professor Wanklyn has experimented on silicated carbon filters, and finds that nitrogenous substances, such as genuine morphine and strychnine, are entirely removed from solution by them. In one experiment 8·841 grains of strychnine having been dissolved in a gallon of water, after filtration the water had no bitter taste, and Professor Wanklyn drank as much of it as had contained ·6 grain of strychnine without any effect being produced. If filters can be dispensed with altogether it is much the best, whilst cisterns are an abomination which cannot be too strongly reprobated. Water for drinking

should be always drawn direct from the main, and hence the importance of a constant supply.

In cisterns some of the water always remains. We have only to look in our water-jugs to see that suspended organic matters from the water settle to the bottom of water at rest, and these carry down with them most of the living organisms. Thus at the bottom of the cistern there is an ever-increasing mass of corruption; and, as cisterns are generally put where they are almost inaccessible, this may go on for an indefinite period.

The material of which the cistern is composed is also of importance. Lead ought to be forbidden by law, and is not nearly so much used as it used to be. Cases of lead-poisoning, arising from the use of contaminated water, are, however, not extinct; and it must be remembered that the soft waters usually supplied to our towns dissolve a perceptible amount of lead by lying in the pipes during a single night. Hence the tap should be as near as possible to the main, and should be in the most convenient place from which water can be drawn, or it will not be used in spite of all orders.

The question of water analysis is too wide to be entered upon. Wanklyn's, Tidy's, and Frankland's processes have all their own good points, though no one can give all the information we need to pronounce positively upon the quality of a water which is of doubtful purity. Very good or very bad waters can readily be determined, but much remains to be done. We have no means of estimating the total amount of organic matter in a water, and still less of distinguishing between the harmless and poisonous organic matter. The microscope should always be used in conjunction with purely chemical methods.

Food in its usual acceptation, as being the vegetable and animal substances employed to satisfy hunger and replace the worn-out tissues of the body, may seem to have little relation to chemistry. From the origin of man he has found out for himself what to eat without the aid of chemistry, and its function is mainly to tell him what to avoid. Yet chemistry—in distinguishing food materials into carbohydrates and albumenoids, and finding the proportions of each in articles of diet—enables us to draw up dietary tables for prisons, &c. It also shows the absurdity of trying to build up an animal structure on starch, especially when not only has waste to be provided for, but a rapidly-growing body requires a large supply of albumenoids. Its lessons have not, however, been taught to all; for poor infants are too often expected to make bricks without straw, or rather without clay, when fed with arrowroot, sago, or cornflour. This is even worse in the case of very young infants, whose secretions are not fitted to digest starch at all.

Another useful application of chemistry to food is in the providing proper diet in cases of diabetes or undue corpulence. In each case the supply of carbohydrates must be diminished as far as possible; as in diabetes they go to make sugar, and in corpulence to make fat. No doubt, in either case, diet alone is not sufficient, but chemistry teaches what is the proper diet.

Cooking as a chemical operation has attained a high state of development, purely by empirical means, and it is not probable that much can be added to the teachings of experience except to enforce them by showing that they are founded on chemical laws. The adulteration of food is, I fear, an ancient vice, and by no means left for the ingenuity of modern times to discover. Chemistry has, however, been called in to detect adulteration; and thus our age stands out as the first in which efficient means have been adopted to repress the evil and punish the evildoer. The ale-tasters and drug-garblers of former ages were the precursors of our public analysts; but the eye and taste are imperfect means indeed when compared with the microscope and chemical tests of to-day. As soon as attention was called to the fact that detection was possible, sensational allusions to "death in the pot" created a panic in the public mind. These sensational statements did good—they directed public attention to the matter; and though we may doubt whether sheep's brains and almond emulsion were ever used for manufacturing milk, or cabbage-leaves used for tobacco, or sloe-leaves for tea to any large extent, just as scepticism is allowable when in these days we are told that butter is manufactured from Thames mud, and champagne from petroleum, yet injurious substances were employed beyond doubt, especially for colouring. This phase of adulteration has almost entirely passed away, and the talents of the adulterator are principally devoted to the dilution of articles of food with inert substances, or the substitution of inferior qualities of the genuine articles. As it has been tersely put—"we are no longer murdered, but only robbed."

But robbery is a crime, and it would be distinct gain to morality if the public mind was impressed with the fact that putting water in milk is as disgraceful and criminal a practice as picking a pocket. This can only be impressed on some people's minds by a similar penalty being inflicted, and probably an imprisonment for one month would produce more effect than a hundred small fines.

The most difficult point to decide is what shall be considered a standard article. This arises principally with milk, a substance which does undoubtedly vary considerably. If we take a very low standard, such as that of milk given by perhaps one cow in a thousand, and let it be known that all above that shall be passed as genuine, then we may be sure that a large quantity of good milk will be watered down to that limit. If we take an average quality as standard, the analyst is pretty sure to condemn some sample which will be proved to be the genuine product of a cow, and his accuracy as an analyst impeached. I think that an average quality is what anyone is entitled to who pays an average price, and that to palm off an inferior article as one of average quality is a fraud worthy of punishment. At all events, some definite point should be fixed in order that there may be uniformity of practice among analysts. On the whole, I think that we may feel very well satisfied with the results of chemistry on the adulteration of food, as, judging from our own experience, I do not think any article supplied by respectable tradesmen at a fair price is adulterated at all. The poor must be protected, as they too often pay high prices for inferior articles, a result in many cases of improvidently getting into debt, and so into the power of those with whom they deal. One subject under this head I have omitted to mention, and it is one of considerable importance, and that is butter substitutes. Of course, to sell them as butter is indefensible and illegal, but a good deal of nonsense has been talked and written against them *per se*.

No doubt no substitute is equal in flavour to the best fresh butter when well made. But this is now a very expensive article, at least 50 per cent. dearer in my experience than when I began housekeeping, and by the poor is almost unattainable. Inferior butter, on the other hand, is a most unpleasant thing both in taste and smell.

Butter differs from other fats in containing a comparatively small quantity of special glycerides, such as butyrine, not found in vegetable or other animal fats. When fresh these give the distinctive flavour of butter, but they are very subject to undergo rancidity, and then their fatty acids are excessively unpleasant, and I should be inclined to think, unwholesome. The great bulk of the butter is composed of stearine, palmitine, and oleine, and these glycerides are found in other fats, of which they practically constitute the whole bulk. These are not so subject to rancidity, and it does not matter from what source they are derived. Many poor persons eat dripping with their bread, and butter substitutes are practically dripping purified, and without the brown colour and the taste caused by overheating the fat. It might be desirable to have a system of inspection to prevent the use of fat from diseased animals, but the fat would be much less liable to communicate disease than the flesh, and the heat used in extracting the fat will almost certainly destroy germs. It must be remembered, that so far as regards lard we are already subject to this risk. Chemistry has been called upon to prevent decomposition of articles of food. For this purpose boric acid, salicylic acid, and bisulphite of lime are those most used. In my experience salicylic acid has been used to preserve grape juice, so as to make an unfermented wine in which there was no alcohol. Whether the use of an agent having distinct medicinal properties is desirable to be taken as an ordinary constituent of food is doubtful, though strictly this would include beverages containing phosphates and hypophosphites, which have been proposed as non-intoxicating drinks, and the use of which does not appear to have been attended with injurious results.

Boric acid is said to be used to keep milk from going sour. Although large doses of this substance have been administered without much perceptible effect, I do not think any such addition to food for infants should be allowed, especially as by

increasing the specific gravity and total solids of milk it may facilitate the adulteration of milk by water.

Bisulphite of lime I know to be a most valuable means of preserving fish and meat in hot weather. It should be washed off before cooking.

Salt is the oldest and most extensive'y used chemical preservative. Its use is absolutely necessary at present, but as it has serious disadvantages arising from the loss of valuable constituents of flesh which pass into the brine, and also from the tendency of salt meat to produce scrofulous diseases, we must look upon it as only a necessary evil, and hope that soon other means will be devised which will be free from its disadvantages. Tinned meats already partly supply its place, and the cases in which these have proved injurious seem to be due to causes which are not inherent in the process. Of these the use of tin containing lead is the worst, and at the same time the most inexcusable, as tinplate may be had free from this objection.

Of all the relations of chemistry to health, the influence which it has exerted on medicine is, perhaps, the most important. At one time all medicines were drawn from plants, with a few, such as mummy and viper-flesh, from animals. If we add to these bleeding and outward applications, sometimes of an heroic nature, such as actual cautery, we have exhausted the repertoire of an ancient physician. When Basil Valentine introduced antimonial preparations the old physicians looked askance at such an innovation, and, as Dr. Sangrado is made to say, notwithstanding the almost universal failure of his favourite remedy of bleeding and warm water, he did not see that the chemists with their kermes did any better. But the contest was an unequal one, and by degrees one chemical remedy after another crept into the Pharmacopœias, until to-day they occupy a very respectable portion of those fearsome books. Salts of nearly all the metals are used, or have been proposed for use; but it is in the domain of organic chemistry that the greatest successes have been obtained. At first, the extraction of a valuable agent from a mass of inert material was the aim set in view, and alkaloids, such as quinine, morphine, and others, were put in the hands of the doctor, increasing the certainty of getting a definite effect by affording a substance of uniform strength instead of a raw material which might differ in quality to almost any extent. Again, some natural products, as opium, contain a number of active principles possessing diverse properties, and occurring in different proportions. These are now separated, and each may be used as seems best.

The next step was to obtain derivatives from alcohol and other similar bodies, such as chloroform and nitrite of amyl, which, with the older preparations of nitrite of ethyl and æther, are artificial organic bodies which chemistry has added to the natural medicinal agents.

Of late a much more ambitious step has been taken, and attempts have been made to prepare artificially bodies found in nature. A measure of success has attended this effort, and valerianic acid, benzoic acid, conine, cinnamic acid, oil of mustard, salicylic acid, and other bodies have been prepared, most of them derived, from that inexhaustible store-house, coal-tar. It must be owned that some of these artificial products, whilst identical in chemical composition so far as the proportion of the elements is concerned, are only isomeric with the natural bodies, and are said to present different therapeutic properties to those of the substances found in nature. Where the natural substances have an action on polarised light the artificial have no such action, showing a difference of internal structure in the molecule.

Among the thousands of new organic bodies which have been obtained it is probable that some will present valuable medicinal agents. Little has been done in this line, but one deserves mention on several grounds. Kairine, a substance technically known as hydroxymethylhydro-quinoline hydrochloride, $C_{10}H_{13}NOHCL$, has been introduced as a febrifuge possessing similar properties to quinine. It seems to be a really valuable agent, and I find that in the Liverpool *Medico-Chirurgical Journal* Dr. Carter speaks favourably of its power in lowering the temperature in fevers, notably rheumatic fever. Its disagreeable taste is against it, but one looks for this in physic generally. Quinoline, from which it is derived, C_9H_7N was at first obtained by distilling quinine with caustic potash, but now it can be obtained by heating a mixture of aniline, nitrobenzine, glycerine, and sulphuric acid, thus rendering its economical preparation possible. We are thus brought back to the coal-tar products as a source of medicinal agents. Kairine has a curious relation to quinine, which has the composition $C_{20}H_{24}N_2O_2$, so that its hydrochloride only differs from two molecules of kairine by containg H_2 fewer. Probably this has something to do with its physiological action.

Dr. Calvert had some experiments made with picric acid. It was found useful in some cases of intermittent fever when quinine was without effect; but, unfortunately, it dyed the patient yellow, and though this passed away in time, it was enough to prevent its further use. Of all the benefits conferred on suffering humanity by chemistry, none is greater than that of destroying the feeling of pain. Anæsthetics have robbed surgery of its greatest terrors; and whilst the patient is spared the pangs of a prolonged operation, the operator can proceed more calmly and deliberately with his task without being unnerved by a feeling of causing acute suffering. Many operations, indeed, could only be performed under the benign influence of chloroform, ether, or nitrous oxide. Accidents do, indeed, occur in their use, and to chemistry is assigned the task of endeavouring to find out some agent which may unite the advantages of those anæsthetics now known with absolute safety to life.

A curious reflection with regard to homœpathic medicine may be made, first suggested, I think, by Dr. Hayward. If the molecular theory be true, and if the limits to the size of the molecule set by Professor Thompson are correct, there must come a time in dilution in which there would not be a molecule of the medicinal agent in a dose of the medicine, and, consequently, a limit to infinitesmal doses exists in the nature of things.

Superior even to the restoration of health is the prevention of disease, and in this field chemistry has made great advances. In old time substances possessing powerful odours were used for this end, and although in many cases foul smells were only masked, and their causes left untouched, recent discoveries of the power possessed by essential oils during their oxidation of forming peroxide of hydrogen show that some real action for good may be exerted by camphor and turpentine and similar bodies. But these must yield to modern discoveries, and without entering upon a discussion of the various antiseptics recently proposed, which has formed the subject of papers read before this Society, there can be no doubt that chlorine and carbolic acid leave all ancient antiseptics in the shade. Were it only in its use in antiseptic surgery, carbolic acid has proved of infinite value. When at the Health Exhibition I was interested to see that the oldest chemical disinfectant, sulphurous acid, used by Ulysses after the slaughter of the suitors, is not yet out of date; as cakes of sulphur, with shavings melted on their surface to afford a means of readily lighting them, were exhibited, and strongly recommended as a means of thoroughly disinfecting houses after infectious diseases. In reference to the action of disinfectants the question of the nature of those mysterious agents which propagate disease is of the utmost interest. If they are organisms or germs, substances fatal to such germs, as carbolic acid, chlorine, and sulphurous acid, are indicated as the proper agents; whilst if we are to believe that complex organic substances not endowed with life are the real poisons, it would seem that oxidising agents, as the permanganates and peroxide of hydrogen, were indicated as the most appropriate means of dealing with them.

Of more limited importance, we may next treat of the connection of chemistry with health in relation to dress. Theoretically we should all admit that dress should have the object of preserving the animal heat without interfering with the processes of respiration, digestion, and transpiration. It is only in the practical application of these principles, as controlled by the requirements of fashion and the desire to be attractive, that the difficulty arises, and surely now that public attention has been so prominently called to the importance of the due discharge of the functions of the vital organs, this difficulty will be met. More directly connected with chemistry is the question of whether aniline dyes are directly injurious, when the fabrics dyed with them are in close contact with the skin. When we consider the enormous consumption of these dyes, and the comparatively few cases of injury recorded, we are led to ask whether the injury undoubtedly caused in some cases is due to a specific action of the dye itself, or to some impurity left in the dye, such as arsenic. Chemistry must give the answer. An attempt is

being made to resuscitate the use of safflower, orchil, and other vegetable dyes, but I do not anticipate any great success for this movement. The use of such dangerous pigments as arsenite of copper, applied upon the surface of fabrics, is, I think, not common now, and cannot be too much deprecated.

When we consider the awful nature of death by burning, it is greatly to be desired that some means of easily rendering the more inflammable fabrics fire-proof could be brought into universal use. Chemistry has brought to the settlement of this important matter several substances, such as tungstate of soda, but it is necessary that to make the use of these protective bodies general, the trouble of applying them must be made as little as possible. The most feasible means seems to be the incorporation of them with starch as sold. In our dwellings the mission of chemistry is to teach us the importance of providing for means of ventilation, securing the absence of sewer gases, avoiding the use of arsenical pigments in the papers on the walls, and, not least, ensuring abundance of light. When we consider the strong effect produced by sunlight in bringing about many chemical actions, we may be sure that it cannot be unimportant in assisting the chemical changes in ourselves and our dwellings, and instances are on record in which the mortality in well-lighted houses has been much less than in others similar in every respect, except that in the one the glorious sunlight could freely enter the living rooms, whilst the other had a northern aspect.

I fear that my treatment of this subject has too much resembled a catalogue, or the index of a book, rather indicating what might be said than saying it. But the limits of my address admitted of no more than this, and a book of no mean size would be needed to treat of it exhaustively. Enough has been said to show the importance of the subject, an importance yearly increasing as the tendency of the age is to remove men from the country, where the fresh and natural surroundings did much to compensate for ignorance of the chemistry of life, to closely-populated towns where artificial conditions of life tend to sap the vigour of men. Corporations and town commissioners are becoming alive to the necessity of the case, and, either voluntarily or compelled by a central authority, are making some provision for a proper observance of the laws of health. Medical officers of health are being appointed over the country, and great are the benefits which have resulted from their labours; but they need greater powers, and even then I fear that they cannot do everything. I fear to appear to advocate the claims of the profession to which I belong, but I think the doctors who best appreciate the importance of the work to be done will agree with me, they have not the time and appliances to perform many of the operations which should fall to their lot to do. To take one illustration: water analysis is a process of such delicacy, and requires such an amount of care and time, that a doctor with his public duties and his private practice cannot do more than deal with the most flagrant cases. I think that a chemical officer of health should work with the medical officer. In a large town or more extensive district each would find work to do, and thus, by the continued agency of the doctor and the chemist, life in our crowded towns would be rendered more bearable, mortality diminished, and a strong and robust population be reared to carry on the traditions of our country's eminence in arts, sciences, business, and labour, and, if need be, to defend our soil against a "a world in arms."

LEEDS.

The Alleged Adulteration of Aërated Beverages.

On September 26, at the Otley Petty Sessions, before Messrs. A. Fawkes (chairman), F. Darwin, J. Middleton, W. Fison, Jeremiah Garnett, and T. C. Wilkinson, the adjourned case against the Ilkley Brewery Company came on for hearing. As we reported last month, the company had been summoned under the Foods and Drugs Act on the certificate of the county analyst (Mr. Allen, of Sheffield), which set forth that a sample of lemonade sent to him contained an amount of lead something like 1½ grains per imperial gallon—a proportion which was stated to be highly objectionable and even dangerous, and that if such liquid were habitually drunk severe and even fatal symptoms of lead-poisoning would ensue. For the defence Mr. Child had put in a certificate from Mr. Rimmington, of Bradford, who certified that if any lead was present it was in so small a quantity as to be practically inert, and did not exceed $\frac{1}{20}$th part of a grain per gallon. The case had been adjourned in order that the third sample should be analysed by the Somerset House chemists. The result was now to hand, stating that the sample contained a minute quantity of lead, not exceeding (in the lemonade case) $\frac{1}{55}$th part of 1 grain, and (in the ginger-beer case) $\frac{1}{160}$th part of a grain in the sample bottles of 10 oz., and that the quantity present might be considered to fall within the limits of an accidental impurity. With that certificate before them he claimed for his clients that the analysis of the county analyst was utterly worthless and unreliable.

Mr. Darwin: You had better not say that.

Mr. Child said it advisedly, for this was not the first occasion that the county analyst had been found to be wrong and his analysis upset. When their Worships came to think of the number of people who, time after time, had been convicted on the strength of that official's certificate, he felt that he was justified in applying to him the terms he had.

Mr. Darwin thought Mr. Child should say no more on that point. It would be better that a copy of Mr. Allen's certificate, together with copies of those of Mr. Rimmington and the Somerset House authorities, be sent immediately to the Clerk of the Peace, with a request that the matter be laid before the county authorities.

Mr. Child agreed to this, and asked the Bench to say that the Ilkley Brewery Company left the Court as they had entered it, without a stain upon their character.

Mr. Darwin: Upon their liquids, you mean — their lemonade and ginger beer. (Laughter.)

Mr. Child thought that some such expression should be made, and he also applied for costs—a request which the Justices decided to defer until the matter had been up before the authorities at Wakefield.

LOUTH.

The Sale of Arsenic.—At the Borough Police Court, on October 3, Mr. Mark Smith was summoned for having sold to Charles Fowler certain uncoloured arsenic less than 10 lbs., to wit 1 lb., on the 24th ult. The defendant admitted the offence, but said, in explanation, that it was the custom of the trade to sell uncoloured arsenic to the farmers and other customers, as for sheep-dipping and some other purposes the colouring of arsenic is detrimental to it. If a customer could not get it in one place he could in another. The law was frequently evaded in this way. If customers applied for 1 lb. or 2 lbs., and were told they must take 10 lbs., they say, "Well, enter me 10 lbs., and I will get it as I want it." The law was faulty, but of course it must be observed. Finding afterwards that the arsenic had been objected to by the police, he sent for it back and coloured it. It was invariably the custom of the trade. The magistrates, after retiring to consider their decision, inflicted a nominal fine of 1*l.* and 9*s.* 6*d.* costs, but they wished it to be understood that in any future cases they would take a more severe course.

NORTHAMPTON.

Explosion of Ammonia in a Railway-carriage.—On September 27 much alarm was caused in a compartment of a market train on the London and North-Western Railway. One of the passengers had with him a rather large bottle of liquid ammonia (commonly called "strike"). While the train was in motion the cork was forced from the bottle, and the contents scattered in all directions. The passengers crowded to the windows for air, and endeavours were made to stop the train. When this was done one of the passengers was almost insensible, and became entirely so directly he left the carriage. After some minutes he revived, water being thrown over him by a clergyman present.

Dr. Squibb thinks extracts of tea or coffee would be as good as extracts of cocoa or guarana. Apparently the virtues of either of these drugs depend on the caffeine or analagous alkaloid they contain. He estimates that 70 grains of tea, 60 grains of guarana, 180 grains of cocoa, or 150 grains of coffee are respectively equivalent to 3 grains of caffeine.

ADDRESS TO STUDENTS,

DELIVERED AT THE COMMENCEMENT OF THE FORTY-THIRD SESSION OF THE SCHOOL OF PHARMACY, BLOOMSBURY SQUARE, LONDON, OCTOBER 1, 1884.

By W. T. THISELTON DYER, C.M.G., M.A., F.R.S., F.L.S., *Assistant Director of the Royal Gardens, Kew.*

MR. PRESIDENT,—I must confess to you that when I was asked to address a few words to the students and members of this Society to-night, I felt an uneasy mixture of pleasure and dismay. I was pleased because, as far as I understand the work which this Society undertakes to do, and as far as I have observed the way in which it performs what it undertakes, it has always seemed to me a body entitled to very great respect and admiration.

Alas, how easily things go wrong!

is the burden of a poem of George Macdonald's which treats of the most human of all relations. There is a good deal of life, however, in which the words are equally apt to ring in one's ears. But the remarkable thing about this Society is that, as far as one can judge from an external point of view, it always goes right. I am not referring to the conduct of its internal affairs, of which I am afraid I am wholly ignorant. I do not doubt that they leave little scope for criticism. What I particularly have in view, and what I am very glad to be able to speak about, is the enlightened encouragement which this Society, I believe ever since it has had a corporate existence, has extended to all knowledge which bears on its pursuits. It was for this reason that I confess I felt it no small distinction when I was requested to speak here this evening.

But, as I have said, this feeling was not unmixed with another. It is a little dangerous to plunge into the midst of an elaborately-organised institution such as this, whose affairs and business one has hitherto viewed from the outside. I feel, therefore, some dismay at being called upon to talk at large under such circumstances. I can only say that if I have the misfortune to tread on ground I had better have avoided, I am sure you will cover my indiscretion with indulgence.

A considerable feature in the business of to-night has been the distribution of prizes, tangible rewards on which I am not so remote from my own student days as not to be able to warmly congratulate the recipients. The admirable words spoken in this room by Professor Michael Foster last year must be still lingering in the memory of those who were present on that occasion. I so thoroughly agree with the wise counsel which he gave, both in regard to the necessity of a proper training for the future chemist and druggist and otherwise, to those to whom examinations are for a year or two to come barriers in the path to be seriously reckoned with, that I shall certainly not attempt to improve upon it. But, remembering as I do, over how large a space in my own life, as it seems to me now, the presence of the examiner brooded like a spectre, I cannot shake myself wholly free from some reflection on the subject.

I am quite prepared to frankly confess that my own experience of the examination-room, if it brought some satisfaction, also brought some disappointment. I can see clearly enough now why it was so, and perhaps you may be glad to have the benefit of the reason. I made the mistake, which I daresay many of you will make, of paying too much attention to some things and neglecting others. The latter invariably turned up in the examination-room, and the former never seemed to excite the same interest in the examiner that they did in me.

In checking this tendency to wander about the fields of knowledge, which ought rather to be systematically tilled, I am disposed to think that the ordeal of an examination is not to be despised. The grammar of a science must for practical purposes be as thoroughly and laboriously learnt as the grammar of a language. Study, then, the subjects that are put before you with equal assiduity in all their parts. Do not—for the moment, at any rate—let your attention run away too far on particular points and shirk others because they are dry. You might as well in learning a language scorn a particular part of a speech or words beginning with a particular letter of the alphabet. If, however, you treat your subjects fairly as a necessary discipline, and have a proper training, the examination-room should have no terrors for you.

Of course I need not say that I do not mean to give the slightest encouragement to what is called "cramming." That is a practice that no one who has indulged in it can look back upon without some loss of self-respect. But for my own part I am always inclined to think that cramming is in more cases to be attributed to some defect in the scheme of education than to inherent vice in the student. If I may be pardoned again a personal reminiscence, I have a keen recollection of a time when I was reading under great pressure the higher branches of mathematics. At the moment of greatest importance to me I had to break off to commit to memory, amongst other things, the thirty-nine articles and the minute details of Old Testament history. Now, I do not for a moment contend that such things should not have their place in a wide liberal education. But they were demanded of me when they seemed singularly irksome and incongruous, and I do not hesitate to say that I despatched them with every artifice of cramming in my power.

But in the future there will, in the natural course of events, be less and less room for this horrid parody of study. The degree to which practical instruction has developed of late is little short of amazing. It is not so long ago that a distinguished mathematician expressed the opinion that personal demonstration was superfluous to the student in the face of the testimony of men of unblemished moral character. But progress has, nevertheless, not ceased. As Lord Rayleigh well said in his recent address to the British Association, "The multiplication of laboratories gives to the younger generation opportunities such as have never existed before, and which excite the envy of those who have had to learn in middle life much that now forms part of an undergraduate course." In my own experience as an examiner nothing has provoked me more than meeting with innumerable cases where failure was not due to want of assiduity or intelligence, but simply to recourse not having been had to the improved methods of teaching which the modern practical examinations absolutely demand. No amount of mere reading will teach a student to display a structure, make a dissection, or analyse a simple chemical with which he is wholly unfamiliar. I do not think, however, that now-a-days very much more pressure is put on the student; his difficulties are, indeed, almost too elaborately smoothed out of his path. But the pressure which is being removed from the scholar is most emphatically put on the teacher. The amount of knowledge which is now required in every branch of study looks, no doubt, large and even formidable to the previous generation. And it would be what it looks if the means and appliances of instruction had not been so enormously improved.

The net result is that the professional student goes into the world better equipped than he ever was before. This is the general experience everywhere, and I do not for a moment suppose that this institution is any exception to the rule; nor is the pressure likely to be relaxed, if only because what is going on in other countries will react upon us here. At least I judge this from such a fact as the recent appearance in Germany of Luerssen's great "Handbook of Systematic Botany," the most comprehensive work we have at present on the vegetable kingdom as a whole. This was expressly written for the use of students of medicine and pharmacy. I do not think any publisher would find it a very remunerative speculation to reprint its two thousand solid pages in this country, and I am not sure that it is desirable that our mental digestion should ever show this kind of capacity. But it is significant to find issued for the general use of professional students abroad a book which with us would only be considered suitable for an "honours" course.

For my part I have no doubt that we are in the grip of an inexorable and irresistible movement, the direct tendency of which will be that all of us who do not want to be stranded will have to learn a great deal more, and learn it better. It will be small comfort, perhaps, if I say that I think pharmacy seems to me to be particularly in the thick of it. Well, I, being as you know an outsider, do not in the least regret it. Let me try and give some reasons why I think you should not regret it either.

If more is given you more will be undoubtedly expected. I suppose that to those older members of this Society, who can

survey the work which it has already accomplished, the change must seem enormous. Some years ago I found myself with a medical friend in a town in the West of Ireland, where we discovered a common acquaintance ill at the hotel. We set out to procure some simple drug to give him relief. After a long search we at last discovered, with the aid of the constabulary, the only chemist's shop in the town. I never stood more aghast at being shown a shed which might, in better days, have been a cowhouse. The pharmacist was away, and we peered over the closed hatch of the open doorway, dimly making out in the gloom a chaotic assortment of jars and ill-looking bottles. I suppose half a century ago such a state of things was not uncommon. Now, the familiar diploma in some neat place of business is the assured symbol of courteous and intelligent aid. Well, this is a great advance; but I do not suppose you will stop here.

As you know, the members of the medical profession are at the present time obliged to learn most of your business in addition to their own. This is a most extraordinary arrangement. I do not doubt that materia medica, pharmacy, and practical dispensing are about as irksome to them as divinity was to me, and that they are treated much in the same way. We shall probably live to see them eliminated from medical studies. I am disposed to think that this reform will pave the way for a more reasonable division of the resources of healing, at any rate where the population in a district is dense enough to support a pharmacist as well as a doctor. This being so, no assiduity on your part can be thrown away in acquiring a perfect mastery of the technicalities of your work. And to a man whose ingenuity has been stimulated by a good fundamental scientific training, the course of every-day business must bring a constant amusement in solving the practical problems which are propounded by the other branch of the profession. At least I judge so from the notices which appear monthly in your journal. From my own experiences I have been perfectly amazed at the dexterity which can be shown, no less than the disastrous failure, in the preparation by different hands of the same formula. When I was reading mathematics, my tutor was always impressing upon me that it was not enough to solve a problem, but that an "elegant solution" was the real thing to aim at. To you the precept will have a more practical meaning.

You will say that this is an extremely utilitarian view to take. And no doubt it is. But no man should dislike aiming at perfection in any branch of human activity to which he devotes himself. The most competent men will come nearest to it, and will find satisfaction accordingly. But all of us may try to give a little "style" to our work and lift ourselves proportionately out of the dead level of life in doing so. Pharmacists must then be peculiarly men of resource, ready to cope with all the reasonable (and sometimes unreasonable) difficulties of their practice. Admitting this, as I suppose everyone does, it is only reasonable that they should have a voice in settling the officially-prescribed details of the manufacture of the drugs which they have to use. One would certainly think that the compilation of the Pharmacopœia was especially a matter in which the members of this Society should take an official part. And so I hope it may be. I believe the community would gain greatly by their assistance. Perhaps, then, something may be done to remedy what has always seemed to me a great stumbling-block—the pervading nastiness of "medicine." It is in vain to argue with your doctor; he will never admit more than that the remedy he prescribes is "not so very bad." I cannot help thinking that pharmacists, bringing practical skill to bear upon the matter, might sensibly alleviate one of the minor troubles of life.

But this is not the whole of my position. The members of this Society go out over the face of the country and will become more and more the local representatives of a great deal more of accurate and useful knowledge than is possessed by the members of the communities in which they live. I do not doubt that this will be gradually found out and made use of. Already in many parts of the country the pharmacists are to be found taking the lead in minor scientific organisations, field-clubs, and the like. From the very circumstances of their existence they might do an immense deal in the local promotion of scientific instruction. As a schoolboy in London I remember a small chemist's shop in a not very fashionable street, which had a fatal fascination for me. It drove a pretty brisk business, but it was at the same time half-filled with scientific apparatus. I need scarcely say that for many months it absorbed all my pocket-money, to my great satisfaction and the great annoyance of my relatives. I have always been very grateful to that shop.

Your ambition should, I think, soar a good deal higher, however, even than this. More from accident than temerity, I have taken no counsel with anyone as to what I should say to-night. It is, therefore, nothing more than a coincidence that I find myself very much anticipated in what I was about to speak of by an article on the possible developments of pharmacy which appeared in the last number of your journal. I need not, then, enlarge upon the text. If you equip yourself with the needful scientific training, I can hardly believe that the public will be slow to put upon you the work you show yourselves fitted to perform.

This is not, however, the only advantage which some of you, at any rate, will reap from the studies which you will pursue in this place. I need not remind you of the well-known names of men who have risen from the ranks of pharmacy to high eminence in the world of science. Some of them of our time are still with us; others we have too prematurely lost. But I am sure there are many to be counted among the members of this Society who have found infinite pleasure beyond their daily work in the studies they commenced here. The man to whom we all look up as the head of muscology in Great Britain is a chemist and druggist in a country village. Need I say that his name is Mitten, and that he resides at Hurstpierpoint? And it comes to my mind that a member of this Society carrying on a large business in a city in Italy—Mr. Henry Groves, of Florence—is by general consent the best living authority on the still imperfectly-explored flora of that entrancing country. It used to be the case that the prudent people of this world saw only in devotion to pursuits of this kind a likelihood of diversion from the practical business of life. I do not know how this may be; I have never seen its effects. My friend Mr. Groves, I suspect, rather brought business energy and capacity to his recreation than allowed his recreation to hamper his business. Noticing this, I could not resist the impertinence of asking him how he came to be so good a botanist. If I remember rightly, he simply said that botany had been part of his professional studies in this building, and insensibly all the rest had followed.

And so I suppose, from time to time, it always will be. And to those who care that it should be so there is the assured prospect of a larger interest in life—something beyond the mere business of bread-winning—an important enough matter which no wise man would play fast and loose with, but still it seems to me a rather dreary object to live for, if it is all.

I think the wise people who preside over this Society must more or less share these opinions. They maintain a very admirable means of keeping alive the intellectual activity of the members in the *Pharmaceutical Journal*. This keeps the whole profession, and a good many other people besides, well posted up in all that concerns pharmacy and most matters that bear upon it directly or indirectly.

All of you at some time or another may have something to contribute to its long array of solid volumes. It is with no small pleasure that I see something of our Kew work from time to time find a place in them. We cannot do much more than clear up the history of obscure drugs. But for this our far-reaching correspondence with people in all parts of the world gives us undoubted facilities. I suppose we caught the impulse from our honoured friend Daniel Hanbury, who rarely visited us without some problem in hand. I confess that when I turn over the pages of the "Pharmacographia"—to me one of the most fascinating of books—and come on some point which the authors had been obliged to leave unsettled, it seems like a resumption of the broken intercourse to take it up and, if possible, carry it to the desired solution. The scientific officers of your Society are, as I think is right, even more eager than we are. And it is fortunate that in the Government offices in London which have to do with our great dependencies and with our external relations there is no feeling of indifference to what must often seem to the uninitiated petty objects of inquiry. Without the aid of the Colonial Office we could not have got the long-standing question cleared up as to the origin of *Cassia*

lignea, a spice repeatedly mentioned in the Bible; and I might give many more examples.

I do not know that the actual progress of practical pharmacy is very closely bound up with these inquiries. But, at least, it is a rational desire to wish to know the exact truth about things. But fashion changes; many drugs of long-sanctioned usage from time to time drop out of use. And it is absurd that we should be actually ignorant of what for centuries the human race has been doctored with. It is but the other day that we ascertained the real plants producing Socotrine aloes and the dragon's blood of the same island, the cinnabar of Dioscorides. As to the drugs which hold their own, it is of the last importance that we should accurately ascertain what are their sources, so that if the natural means of supply should fail we may transfer the cultivation to other countries.

I must confess, however, to a belief that there are immense possibilities of addition to empirical pharmacy. The European Pharmacopœia, I suppose, derives its origin from the medicine of the middle ages, when the reputation of drugs rested on anything rather than their ascertained physiological action. A friend not long since was good enough to send me a copy of a sixteenth century book, which is, I dare say, in your library, the "Phytogonomica" of Baptista Porta. My friend, being a collector of mathematical books, bought it thinking that it treated of dialling; it could hardly go less astray from the aim of rational therapeutics if it had. The Doctrine of Signatures, as it was called, is said still to survive amongst us when we put saffron or a rusty nail into the water given to a canary. It was here, at any rate, rigidly carried out. For example, Porta recommends oak-bark and resin as local applications for skin affections; not, as we should say now, because they are astringent and stimulating, but because plants which readily shed their cortical tissues are proper for restoring those of mankind. We may wonder how much of this still lurks in the unchallenged tradition of our practice. Our materia medica is not quite as varied as that of the Chinese, to which nothing—even a pounded fossil brachiopod—seems to come amiss. But my own experience of materia medica has made me very sceptical as to a good deal that still has official sanction.

I confess that I have great hopes of a new harvest of really effective drugs from a careful study of the remedies in use by savage or partially-civilised races. These rest on the soundest of all foundations—the test of experience. I will, if you will allow me, illustrate my position by reading you a passage from a book which came into my hands the other day, and which is much more worthy of attention than the rather flippant title, "Camping among Cannibals," would lead anyone to suppose. It is only one of many passages which time will not allow me to quote.

"The knowledge the Fijians have of herbs and simples must be very excellent and extensive. They have cured him (the skipper) of an attack of dysentery when the best European advice he could get here, from men-of-war and other ships, had utterly failed. The old women take you in hand and bring you decoctions and infusions of leaves, which they make you drink while they stand by, to see that you save none of the leaves and so learn their carefully-hidden secret. If they send you medicines, the leaves of which they consist are always chewed or pounded out of shape. Their knowledge of poisons is great, and was extensively used by chiefs for political purposes, removing by this means any dreaded rival or dangerous foe."

That valuable drugs have already been derived from such sources it is easy enough to show. The study of the properties of pituri, obtained from Australian aborigines, led to the identification of the plant and the further discovery of duboisin by Bancroft. Such a careful study as has been recently made by Dymock into the drugs of Western India is a pattern of the kind of research which is everywhere needed. It was curious to remember in a recent controversy as to the activity of jequerity seeds (*Abrus precatorius*) that they have been used from time immemorial for secret cattle-poisoning in India.

I have a strong suspicion that it is the mediæval flavour, if I may so express it, that hangs about our pharmacy which has of late engendered a considerable scepticism about the action of drugs altogether. And this is by no means a popular heresy only, but it is an attitude shared by many very capable members of the medical profession. With such men I am afraid the interest of a case rather seems to stop with what they call "the confirmation of the diagnosis." The practical and common-sense world will, however, always demand that the medical art shall go farther than this. I am bound to say I am entirely of the same opinion. It is for this reason that I am anxious to see our list of first-class drugs—such as quinine and ipecacuanha—very much increased. I can conceive an idcal therapeutics, in which we should have drugs in our *répertoire* which would stimulate or inhibit every function of the organism. An unfortunate obstacle comes, however, in the way in the shape of the fact that there is in this country surprisingly little disposition to engage in the investigation of new remedies. The study of rational therapeutics can hardly be said to exist; at the most it is attacked in a disconnected or spasmodic fashion by men who have too much else to do.

As an illustration of the difficulty of settling even promising problems taken up I may mention a case in my own experience. At the time that Mr. Darwin was engaged in his work on Carnivorous Plants I was in frequent correspondence with him about it, and as about the same time Sir Joseph Hooker chose the subject for an address to the British Association at Belfast I was naturally led to look a good deal into its literature. I called to mind the stories so constantly repeated by travellers of the effect of the foliage of the papaw tree in rendering meat wrapped in it tender. I earnestly entreated the physiologists of my acquaintance to have the properties of papaw thoroughly examined. I did, indeed, induce one friend, by persistent pertinacity, to make some superficial experiments which led to nothing of importance, while another would not even admit that it was worth investigation. Eventually the problem was taken up by the distinguished French chemist, Wurtz, and carried to a triumphant conclusion. The existence of a ferment, papain, very similar to pepsin, was discovered. The substance was isolated, and is now, I believe, manufactured for therapeutical purposes. And you may imagine the vexation I have felt at having specimens shown to me as a scientific novelty. Nor is this all. As I learn from a recent lecture delivered by Professor Hartley, the study of papain has thrown light on the general nature of the changes brought about by the class of bodies to which it belongs. These changes there is good reason to suppose may all be included in the kind of chemical change to which Professor Armstrong has given the name of "hydrolysis." The large molecule of the fermentible substance, under the influence of the ferment, is led to enter into combination with water and is then resolved into two or more molecules of lesser weight, the ferment being regenerated.

Well, this may be thought a too isolated and personal experience. I suspect it is not so; and I take leave to quote in support of my opinion the even stronger words of one of your past Presidents, Mr. Greenish, from the pages of your own Journal:—"The *Perezia* may prove a valuable medicinal plant, but to determine that point there are yet wanting those careful therapeutic investigations which should precede the appearance in general practice of any new drug, a series of well-conducted experiments which very few seem capable of conducting, and for the results of which still fewer have the patience to wait."

Another field of investigation, not so closely connected with pharmacy perhaps, is the mode of origin in the plants themselves of the principles of which we make so much use. I observe, however, that the editor of your journal is by no means neglectful of the interests of vegetable physiology, at any rate of that part of the subject which is connected with what is called the "metabolism" of plants. This is a wise judgment, if only on the ground that it is at any moment possible that some highly practical result may flow from it. At present, however, we are, as I have said, almost wholly in the dark about these principles. Active as are their effects on the animal organism, their properties seem, as regards the plants which elaborate them, purely accidental. What possible meaning can we attribute, for example, to a ferment as effective as rennet in coagulating milk in the berries of a solanaceous plant? It would obviously be very convenient to be able to control the production of some of these by-products of plant life. But except the experience of Broughton, in increasing the yield of cinchona alkaloids by adding to the supply of nitrogen in the soil, I call to mind no tangible results in this direction.

I think what I have said shows that we are in want of

something that would crown the work of an institution like this—a provision for the systematic advancement of the higher branches of pharmacology and of subjects allied to it. This would necessarily be something altogether apart from the regular curriculum of students' work. But it would afford facilities for those who were content to prolong their studies to do something under skilled guidance in the way of research. I do not know that in any equitable sense it could be expected that this Society should undertake, or undertake alone, such a responsibility. What I am suggesting is only, after all, one detail in a vision of that great and comprehensive university organisation for the higher studies which ought to have its seat in London. With such an ideal university the work of such an institution as this would doubtless be in some sort of federal relationship, and there would be no valid reason why the work done here should not, step by step, proceed through the portals of research to the recognition of an academic degree. We have had two chances of a metropolitan university. The first, Gresham College, still survives in the last extremity of functional atrophy. But its structural organisation is still intact and sound enough; it possesses a number of chairs, including one of medicine. It is not inconceivable that a vigorous development might yet bring it into the reality of active life. Our second chance yielded us, as you know, a most valuable institution; but, still, one which is not a university except in name, but a Government institution wholly given up to the business of examination. The University of London has, however, a solitary professor, and in time to come his isolation may be comforted with colleagues.

Lord Bacon, in a well-known passage, has expressed his distrust of universities. Perhaps, had he lived to our day, some pages of the "Novum Organon" might have been recast, when he had taken note of what is being done at Cambridge and elsewhere. When one sees what can be done, it is not a thing to be regarded with any satisfaction that the higher scientific studies have as yet found no recognised home in this great city. But the future may, in due time, reveal some remedy for this. When it does I doubt not that the Pharmaceutical Society of Great Britain will be as willing to take up the fresh burden of responsibility that may be thrown upon it as it has worthily borne that already on its shoulders.

SOUTH LONDON SCHOOL OF PHARMACY.

THE winter session of this establishment was opened on Wednesday, September 17, when the prizes and certificates were distributed. The chair was taken by the Rev. S. Bache Harris, vicar of St. James', Kennington Park. Among those present were Dr. Soper, Mr. Joseph Ince, the Rev. J. Goslett, Dr. Muter, the director of the school; Mr. John Smith, Mdlle. Léonie Tournier, Mr. Price, and Mr. Baxter, the secretary of the Institution.

The following were the candidates who obtained honours :—

Senior Chemistry.—Medal, R. Wilkinson; Certificates, D. Arnott, J. Jackson (equal)

Junior Chemistry.—Medal, W. Rushton; Certificate, W. Holme.

Botany.—Medal, T. J. Clarke; Certificates, W. Holme, R. Atkinson.

Materia Medica.—Medal, W. Holme; Certificate, T. J. Clarke.

Pharmacy and Practical Dispensing.—Medal, F. E. Brown; Certificate, W. Rushton.

Extra Certificates of Merit.—Messrs. Coleman, Cooper, Jackson, Kingan, Matthews, Taylor, Ward, and Williams.

Several gentlemen on the platform gave short addresses to their young audience, previous to which Mr. Baxter reviewed the work of the session, and spoke kind words of congratulation to the students. The task was performed under somewhat difficult circumstances, for the heat and closeness of the morning were phenomenal.

In the course of the proceedings, Mr. Joseph Ince spoke as follows :—

"A recent circumstance demonstrated the rising of the neighbourhood of South London: they began to widen the bridge at Charing Cross. You may not have noticed the reason given at the commemorative entertainment; there it was stated that the growing importance of the locality demanded better means of intercommunication. I have searched diligently for evidence of the fact, and I supposed the sentiment was justified by the presence and the prosperity of the school in which we are assembled. May I venture to hope that each student has enjoyed his holiday? As we grow older we become more philosophical, and I look upon this annual break not only as something agreeable, but imperative, especially for all those who are engaged in any intellectual pursuit. It is of little consequence how or where the change be effected, so that it be an absolute rest from our ordinary occupations. Let the time come when the student may leave behind him books, literature, and science; when he can gaze upon the ocean, or delight in some of the splendid scenery which the British Isles afford; or if, following my own example, he contents himself with the green fields and rippling brooks which are guarded by the Surrey hills, assuredly he will not miss his opportunity.

"Thus refreshed in mind and body, he will come here, able to enter upon the mysteries of chemistry, or the details of materia medica, or upon all that is included under the name of Practical Pharmacy, so that when in due time he is officially asked to produce evidence that he knows what is required, he may not only believe he does so, but may be able to give a reason for the faith that is within him.

"The ambition of every young man is to win for himself an honourable independence. This is the hope of England—the foundation of national and commercial prosperity. Our calling is Pharmacy. I shall not stop here to quibble whether it be a trade or a profession. I consider it to be the former, with many professional bearings and associations. We exercise it under changed conditions dictated by public opinion and by law. Time was when an elementary knowledge of chemistry sufficed. It was enough to know the composition of certain bodies; to know how they might be made; the nature and reactions of sundry salts, and the theory of their manufacture.

"In materia medica it sufficed to recognise the drugs in chief use; to state from whence they came, and for what they were employed. Practical pharmacy was of a still more elementary character; while the art of compounding medicines as far as concerned demonstration on the part of the student as to his capability was ignored altogether. This essential branch was introduced, as you are aware, by the late Mr. Peter Squire. How changed is all this! To chemistry has been added the art of systematic analysis, a sufficient explanation to every chemical student of the new development.

"In a word, the curriculum, that is, the ordained course of study, has been widened and deepened in the whole of its requirements. There are a few men, very few indeed, who work alone. That is the constitution of their minds—they pursue their own researches and their own unaided studies. To them class organisation is useless, and even detrimental. In private I have known but one who answered to this description, the late Daniel Hanbury, and he can only be quoted as a conspicuous illustration of an exception to the general rule.

"Most students want the stimulating breath of intercourse and of companionship. Moreover, seeing how vastly the subjects to be studied have increased, and how short is the time at our command, it becomes indispensable that they should be under efficient guidance. Such is the attempt made here; the instruction given is not only admirable in itself, but arranged in a definite and systematic manner; and I am, therefore, justified from the double motive of your intellectual training and your ultimate success, in commending to you the claims of the school whose opening session we this morning celebrate.

"Schools without exception are attended by three classes of students. Some there are who come to London as a spree—a public course is a pretext for what they label seeing life. Their home surroundings have been too strict, and their weekly allowance has been on too small a scale to accustom them to the use of money. They come in waves; they are not a constant presence. I am not here to moralise, for I know that conventional advice is useless. All I ask, as one student is privileged to ask another, is, that if you adopt this course, you will do so alone, and not drag in some other weak companion.

"There are others who begin well, but soon find regulations irksome and fixed rules a burden. They gird at these, as a sort of police supervision, and display a questionable skill in eluding the order of a school. This is a pity, and not rational,

for there is not a solitary regulation which is not framed in their own personal interest. Thank heaven! there are hundreds—an overwhelming majority—who belong to another class. This is the student who has come to work; means to work, and does so. At times the task is hard and monotonous, but he perseveres, until that which was mere abstract study becomes the delight of his life and the breath of his existence. Such a man an instructor loves; such a student is his best reward, and his name is held in affectionate respect akin to reverence.

"A few weeks ago I went down to the Docks to see a friend off to Australia. The day was damp, dull, and dreary, and the mournful aspect of the weather lent a gloom to the occasion. I passed for the first time a set of melancholy stations, of which I had read in Mr. Besant's books, but which I had never before seen. Each appeared a shade more dismal than the other. It was a large vessel, with much goods on board, and the arrangements for high-class fares need not be described. But I determined to see for myself what was meant by a steerage-passage. I was astounded! Into a sort of hold, by means of a steep gangway, were slid men, women, and children, down into the darkness somewhere. I explored this 'somewhere,' and beneath found tiers of wooden boxes, which, on inquiry, proved to be the berths for sleeping occupants. One can imagine with difficulty how these conditions could be endured for three long months.

"It is always useful to talk with those around. So I asked one, 'Where are you going?' 'To Melbourne.' 'Have you any definite post?' 'None whatever; I am going on speculation.' Then another: 'What is your destination?' 'Sydney.' 'Have you a place in view?' 'None as yet, but I hope to do better there than I can do at home.' To relate further would be repetition.

"Now, gentlemen, I think I may really turn this narrative to account, and I would say, if there are British youths who will leave home and friends and comfort; who will put up cheerfully with the direst inconvenience, all to gain an honourable independence, with no assured prospect of success; shall not other British youths, seeking the same independence, but under happier auspices, think lightly of their small troubles and the minor difficulties which beset their path? Before you is a plain, mapped-out career, and a well-grounded hope; nor will a student waste one single after-thought on the discomforts on the way when he has finished his career with honour, and accomplished the desire of his heart."

PHARMACY IN AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

MELBOURNE, VICTORIA, August 21.

A Liberal Donation.

MESSRS. FELTON, GRIMWADE & CO., of this city, have forwarded a cheque for 100*l.* in aid of the building-fund of the College of Pharmacy, and the unanimous vote of thanks that was passed to the firm at the last meeting of the Council of the Pharmaceutical Society will be endorsed by the whole of the pharmacists in the colony.

The Duty on Spirits.

An increase in the import duty on perfumed spirits is desired by local manufacturers of perfumery and culinary essences. They use Victorian spirits 65° above proof, the duty on which, at 6*s.* per gallon for proof spirits, was from 15*s.* to 16*s.* 6*d.* The effect of raising the excise duty from 6*s.* to 8*s.* per gallon is to enhance the rate to 21*s.* or 22*s.* On perfumed spirits the import duty is 20*s.*, and an increase to 26*s.* for protective purposes is applied for.

It is suggested that leave should be given to manufacturers in bond, the old rate of 6*s.* per gallon being charged. Spirits used in the making of scented soaps are mixed up in bond and allowed to pass out duty free.

The alteration in the duty on spirits, in addition to adding 2*s.* per proof gallon to spirits of wine, will cause an advance on all patent and proprietary medicines containing spirit, and on tinctures and many other preparations.

Assistants still Wanted.

I have again to note the scarcity of assistants, those few of the right class who have come out lately have readily obtained employment, and one or two each month need have no fear of not gaining situations; the class I refer to as being desirable are steady single men, who are qualified and who add a reasonable amount of steadiness and perseverance to these qualifications.

The Wholesale-drug Trade.

The buildings and the ground on which two of our wholesale-drug firms carry on business have recently been sold. The building occupied by Messrs. Rocke, Tompsitt & Co., was erected 26 years ago, and has a frontage of 58 feet 1½ inch to Flander Street by a depth of 96 feet 9 inches. After a brisk competition, Messrs. Rocke & Tompsitt became the purchasers at 312*l.* 10*s.* per foot.

The other building was that occupied by Messrs. Duerdin & Sainsbury, with land fronting Flanders Court 60 feet 10 inches by depth of 53 feet 4½ inches, of which Mr. Duerdin became the purchaser for 4,500*l.*

Mr. C. A. Blackett has been offered by the Government the position of analyst under the Tea Act.

From Sydney

I learn that a meeting of persons interested in the formation of a Chemists' Assistants' Association was held at the School of Arts on July 31.

The objects of the Association were stated to be (1) To secure more cordial relations between the followers of our profession by bringing them into more immediate contact with one another; (2) to protect the interests and advance the cause of pharmacy; (3) to initiate a fund to assist the worthy in need.

The office-bearers are composed entirely of chemists' assistants, employed in the leading chemists' shops or hospitals, Mr. Hargrave, of Prince Alfred Hospital, being the secretary.

In the Council of the Pharmaceutical Society of New South Wales change has followed change. Mr. Frank Senior, who has been president of the Society for six years, has retired from that office, and was succeeded by Mr. J. S. Abrahams, who, in his turn, retired, after a very brief reign, to be succeeded by Mr. William Larmer, who has promised to preside over the Council meetings during the ensuing year. Mr. Abrahams also resigned his seat upon the Council and declined the examinership of the Department of Pharmacy at the Technical College, pleading pressure of business engagements as his reason. Mr. Bozon, an old and highly-esteemed druggist, and former member of the Council, has been nominated to fill the vacancy caused by the retirement of Mr. Abrahams. It is hoped that Mr. Abrahams will consent to be nominated for the next vacancy in the Council caused by the retirement of Mr. F. Wright, who will probably again enter the service of the Society as their instructor in connection with a College of Pharmacy which is provided for in the new regulations.

The retirement of Mr. Senior and Mr. Abrahams from the Pharmacy Board is greatly regretted by the members of the trade. Both gentlemen possessed the confidence and esteem of the chemists throughout the colony, and every inducement will be tried to get them to reconsider their determination. In Mr. Senior's case we can quite understand that a man "full of days, riches, and honours" should desire to be free from some of the cares that the position of necessity entails; but Mr. Abrahams is in the prime of life, possessed of excellent health, and a flourishing business, commanding the confidence of the druggists in our land, and it is to such as he that the Society naturally looks for assistance in the deliberations of the Council.

I am informed that Messrs. Evans, Lescher & Webb are about establishing a permanent office in Sydney, of which Mr. W. J. Watkins is the manager.

In Tasmania

an attempt to improve the position of dental practitioners is to be made this session by a Bill, which was introduced into the House of Assembly by Mr. Rooke, and which has since been printed and issued to hon. members. The Bill is nearly a transcript of an Act now in force in New Zealand, and pro-

vides that after a certain date, which is yet to be fixed, no one except a legally qualified medical practitioner shall be entitled to take or use the name or title of dentist, dental-surgeon, surgeon-dentist, dental practitioner, or any name, title, or description implying that he was registered under the Act, or that he is a person specially qualified to practise dentistry and dental surgery, unless he is registered under the Act. No unregistered person is to be entitled to take or receive a fee for the performance of any dental operation, or for attendance, prescription, or advice. Anyone who does so will be liable, upon summary conviction, to a fine not exceeding 50*l*.

Queensland.

An interesting debate took place in the Queensland Parliament of July 28 last, on the occasion of the second reading of the Queensland Pharmacy Bill.

The Hon. A. J. Thynne, who advocated the measure, gave a summary of the earlier proceedings in reference to it. It appeared from his speech that there was some doubt as to the practicability of forming a sufficiently competent Pharmacy Board from among the chemists themselves, and that medical men had expressed an objection to sit on the same board with chemists, as they considered they were of higher standing. He said it would be easy to appoint examiners on special subjects. He supported his argument for the necessity of this legislation by referring to the recent morphia accident in Victoria. The doctor who had prescribed an overdose was acquitted on the ground that it was the duty of the chemist, when making up the prescription, to detect the mistake, and that he was as bad as the doctor in supplying the medicine. There was a good deal of common sense in that. If a doctor prescribed a poison or other dangerous remedy in a quantity dangerous to life, his prescription should be checked by the chemist, to protect the public from danger. The effect of the Bill would be a better and gradually improving class of chemists in the colony in future; and he moved that it be read a second time.

The Postmaster-General (the Hon. C. S. Mein) recommended that the Bill be again referred to a select committee. The Bill would confer upon every existing chemist and druggist the distinction of a pharmaceutical chemist, and it was well known that a pharmaceutical chemist was a gentleman who had gone through a series of examinations and had shown himself qualified in several branches of medicine. He did not agree with Mr. Thynne that the examination proposed was the same as in England. The existing Medical Board had presented an informal protest to the committee, which ran as follows:—

"The Board consider the present status of chemists and druggists in Brisbane to be far too low to undertake the matter sought by them, and that two official boards, one medical and another pharmaceutical, would lead to antagonism and an undesirable state of things. That one Board to preside over the registration, and, if necessary, examination of medical men as to their qualification for practice, the registration of pharmaceutical chemists educated and examined elsewhere, and the proper education of chemists in the colony, would be a far more desirable state of things until a Queensland university is established and professional education otherwise provided for."

Further he pointed out that the Bill made no provision in reference to the sale of poisons.

The Hon. K. J. O'Doherty (a medical man) thought the Postmaster-General's speech was the strongest proof of the necessity of making an effort to improve the position of the pharmacists. To his mind, the action of the Government in reference to this Bill was most extraordinary. He did not believe in the whole range of legislation there was anything more important than to see that those who compounded daily for us in our extremity were qualified men. The Postmaster-General argued that because certain people said that the chemists and druggists of this town were not qualified to examine candidates for admission to their ranks that, therefore, they were to go on and have a second edition of unqualified men in the future. What, he would ask, was the use of a doctor if his chemist was unfit to compound the drugs prescribed? It was all very well for the Postmaster-General to talk in that way, because to his (Dr. O'Doherty's) knowledge, and he regretted for the hon. gentleman's own sake, for a number of years his faith had been fixed upon homœopathy. He thought he had broken the hon. gentleman's faith somewhat, and that he was coming to a more rational frame of mind. The homœopathist, with his little square box before him, and the little pill which could not be seen, cared for no one—he could defy the medical man.

The Hon. A. C. Gregory thought something should be done to regulate the practice of pharmaceutical chemists, but he did not think that this Bill provided sufficient safeguards. It would create a close corporation of pharmaceutical chemists, who, after the first two years, would be able to appoint their own board and keep out anyone that did not please them. To a certain extent the Bill would give those chemists a monopoly of the sale of drugs; and what would the public get in return? They would have a list of the qualified chemists who had passed their examination; but there appeared to be a doubt as to what that qualification would be. Besides, there was nothing to prevent a qualified chemist employing a totally ignorant and unqualified assistant.

After some further discussion the proposal to refer the Bill to a select committee was carried.

PHARMACY IN CANADA.

(FROM OUR OWN CORRESPONDENT.)

Montreal, September 30.

Mr. H. S. Wellcome, of the firm of Burroughs & Wellcome, of your city, who was here at the meeting of the British Association, paid your correspondent a flying visit a few weeks since. He is quite enthusiastic about the meeting, and looks upon it as a great success. In the course of conversation, interesting events in his partner's (Mr. Borroughs) recent trip round the world were alluded to. Your readers will doubtless recall Mr. Burroughs' instructive letters from India and New Zealand which appeared in The Chemist and Druggist. A sum has been raised among the visitors towards the endowment of a chair in McGill University, of Montreal, in commemoration of the visit of the British Association.

The College of Pharmacy opens on October 2. Mr. A. H. Mason, F.C.S., late of Liverpool, and now a resident of Montreal, and, if I mistake not, a member of the firm of H. S. Evans & Co. will deliver the opening address to the students. Professor Reed lectures on "Materia Medica and Toxicology," and Professor Bemrose, F.C.S., on "Chemistry and Pharmacy. The latter will also give the course of botany. Gold medals have been offered by two city pharmacists—one for the best Major examination and the other for the best Minor. Mr. Wm. Ahern has been re-appointed secretary to the college.

I was struck by a remark made at the recent meeting of the American Pharmaceutical Association by Mr. Thompson. He said: "I suppose I am like the rest of the gentlemen engaged in the practice of pharmacy: the longer we are at it the more we realise the vastness of the danger and responsibility we are constantly under in dispensing medicine. There is not a dose of medicine that goes out of a drug store which does not carry with it the reputation, and perhaps all he is worth, of the man who puts it up." If grumblers would only think of this when they begrudge the price of a mixture containing a poisonous alkaloid!

Supplementary Preliminary examinations were held this week in Montreal. Seven applicants for registration as apprentices presented themselves, and all were admitted. The best examination was passed by Mr. Dyer, jun., who is an associate of Arts of McGill College.

The business at the corner of Bleury and Craig Streets in this city, lately carried on by Mr. Baillargè, has been purchased by Mr. Chapman, late of the Medical Hall Branch. A very successful business was done in this stand some years ago by the late Mr. Latham. Since then it appears to have been a good deal neglected, but in Mr. Chapman's hands it bids fair to regain its former prestige.

With regard to the appointment of Mr. H. Sugden Evans as chief analyst for the Dominion, the *Pharmaceutical Journal* of Toronto says:—"Mr. Evans is a thoroughly practical man, well versed in the branches of science required for his new position, and free from that *crankiness* to which public analysts are too often subject." Your readers will understand

that the last part of the paragraph refers to analysts in England. Our own local analysts have always given fair play to the trading public, and have never descended to such absurdities as the lac-sulphur business, which at one time was so popular with English analysts.

I have just heard of a large quantity of tea being brought into Canada which was purchased in New York at 9c. per lb. If this be true, and I have no doubt about it, the new analyst cannot do better than interest his local analysts in the tea-adulteration question. I have also been informed that the demand for cheap tea is principally from the large colleges, convents, and other public institutions. "The cup which cheers and not inebriates" is apt to be a delusion and a snare in this case.

THE PHARMACEUTICAL SOCIETY OF NEW SOUTH WALES.

THE eighth annual report of this Society, which has reached us during the month, reveals a comforting state of prosperity and activity. The annual meeting was held on June 12; the President of the Society, Mr. F. Senior, occupying the chair. The annual report—read by the secretary, Mr. W. T. Pinhey—announced that more names had this year been added to the roll of members than in any previous twelve months. More students had passed their examinations; and the lecturer, Mr. F. Wright, had improved the course of study. A new Pharmacy Bill had been prepared, and placed in the hands of the Government, who had undertaken to deal with it as soon as possible. In a short time it was hoped a date would be fixed for an Intercolonial Pharmaceutical Conference. Presents of books were acknowledged.

The balance-sheet, read by the treasurer, showed—income, 277*l.* 11*s.* 6*d.*, the largest ever received; expenses, 182*l.* 4*s.*; balance to the credit of the Society, 195*l.* 7*s.* 10*d.* At the beginning of the year the balance in hand was only 100*l.* 0*s.* 4*d.* The Society has, further, 200*l.* invested, and a library valued at 250*l.* Mr. Larmer, in moving the adoption of the report and balance-sheet, remarked that no small amount of the success of the Society was due to the exertions of their excellent secretary, Mr. W. T. Pinhey. Mr. Prosser, speaking as a representative of the wholesale trade, thought the time had come for a determined effort to increase the prosperity of the Society. He suggested the establishment of a Pharmaceutical College in Sydney, like that since opened in Melbourne. He hoped the Council would soon lay a formal report on the subject before the whole trade of the Colony. He thought it would be well also to hold a biennial or annual conversazione.

The President's address dealt with the new Pharmacy Bill, a proposed Medical Bill, and the relations of pharmacists to medical practitioners, pharmaceutical education—preliminary and technical, and a proposal to establish a benevolent fund. From the address and discussion we gather that the Government had invited the Society to draft a Bill for the amendment of the existing Act, but had stipulated that it should not be made public. Apparently, it is proposed to confine to qualified persons the sales of poisons, either alone or in guise of proprietary articles; each packet of poison is to bear a label stating what is the antidote. Medical men who employ dispensers will have to employ competent [qualified?] men; as also friendly societies, and the Government (for gaols, &c.). It was stated that the number of confirmed chlorodyne drinkers was on the increase. In connection with the proposed Medical Bill the President said:—"It was never intended that minor ailments should not be treated by the pharmacist, nor that the great bulk of the people should be forced to consult a physician every time they feel a little out-of-sorts." The standard of the qualifying examinations had been raised during the year. At present the subjects of examination are—theoretical chemistry, materia medica, pharmacy, and the reading of prescriptions. On January 1, 1885, practical chemistry, botany, and toxicology will be added. A schoolmaster's certificate, or the junior University examination in English, arithmetic, and Latin, is now accepted in lieu of the preliminary examination; but, henceforth, the Council will not recognise indentures of apprentices who have not been sufficiently long at school to gain a fair education. Forty-two students were studying in Sydney under the supervision of Mr. Wright. The Technical College of Sydney had made plans for working a department of pharmacy, and conferring the degree of "expert of pharmacy," but the Society had not been consulted in the matter, though the same lecturer had been retained. The interchange of diplomas had engaged the attention of the Council, but the difference in the standards of examination stood in the way. It had been proposed to establish a benevolent fund. The claims made were not numerous, but the secretary should not be left to relieve them from his own pocket. Mr. Wright had offered to give a series of popular lectures in aid of it in town and country.

On the motion of Mr. James Mayne, it was resolved unanimously—(1) That the Society shall be incorporated by Act of Parliament, on the lines of the British Society; (2) that the Society shall take under its direction and publish a journal, to be called the *Pharmaceutical Journal of New South Wales*; (3) that a pharmaceutical conference be held at an early date in Sydney with the other colonies. Messrs. Frank Senior and Fred Wright were elected to the Council.

HOMŒOPATHY.

By W. B. A. Scott, M.D.

A FEW days before the appearance of this number, several hundreds of youths, of varied acquirements and mental power, began their medical curriculum, and a nearly equal number entered on the session with which it ends. Among the former not a few will be contemplating the end from the beginning—rather a premature proceeding, but one to which youth, with all its alleged lack of forethought, is eminently prone; while, among the latter, such contemplation, from their more advanced standpoint, is only befitting. Many will, doubtless, look forward to joining their fathers or other relatives in the capacity, first of assistants, and then as partners, ultimately succeeding to the entire practice when the hand of time shall have gathered their seniors to the great majority, or laid them aside from old age. Others will have in view the army or navy, or some other department of the public service; others will have to fight their own way single-handed, and take their chance of being able to establish a practice for themselves. Others, again—a small minority, doubtless, but sufficiently numerous and ardent to deserve consideration—enter upon their studies with a tolerably fixed determination respecting not only the department of practice, but the mode of practice to which they will devote their lives. This is certainly an unwise plan; the elementary branches of medical education—such as chemistry, anatomy, physiology, pathology, botany, and the like—are common to all schools of medical thought; and to begin the study of even the more special subjects—such as therapeutics and practice of medicine—with a foregone conclusion as to the results to which they will lead the student, is to bias the mind at the outset. And yet, except in a few very rare instances, such a bias must exist, and it is even desirable that such should be the case. It is by means of the prejudices (if such they must be called) derived from our early surroundings that most of us have any convictions at all, either on religious or scientific or social subjects; and convictions of some sort we must have, if our lives are not to be frittered away in a ceaseless pendulum-like oscillation from one extreme to the other, ever learning (or fancying ourselves learning), and never coming to the knowledge of the truth. Independent judgments, and all the rest of it, are mighty fine things to talk about, and extremely flattering to the vanity of their supposed possessor; but in nine hundred and ninety-nine cases out of a thousand they are simply the prejudices of individual conceit and ignorance, infinitely less respectable than those founded on the average consensus of the generation among which we live. Those who, even with with the highest qualifications, set out in their youth with the intention of framing a system for themselves, have often, at that maturer epoch when, according to Young, a man knows himself to be a fool, been glad to revert to the dogmatic teaching of their earlier days. Lessing, in one of his

letters, implies that the confusion and negations engendered in his own mind by efforts at independent thought half tempted him to recur to the old-fashioned doctrines in which he had been brought up. Something not very different is expressed by Dryden in "The Hind and the Panther." And what the great German critic and English poet said in regard to religion has been echoed by thousands far inferior to them respecting less sacred subjects. On the other hand, there are some whose lot has been cast from their earliest days among an exceptional class, whether for good or for evil. Now, while I should be the last man in the world to encourage striplings in general to think themselves wiser than their sires, I am enough of a Philistine to be quite willing to recommend those just mentioned to reflect seriously whether they themselves possess the originality and mental power and acquirement necessary to render them useful members of such a class, even supposing it to possess, in their opinion, some elements of real superiority. A man must possess moral and intellectual qualities of no common order to grace, or even not to disfigure, a small dissentient sect. Many a man of respectable abilities and acquirements, who might have led a useful and honoured life as a member of a recognised and dominant school, falls at once into all sorts of extravagances as soon as he connects himself with a community in which eccentricity is reckoned as a virtue, and paradox passes muster for originality. And this must, to a great extent, always be the case, I do not say among the leaders, but among the rank and file of every separatist body. The isolated position in which it stands produces, almost of necessity, in the vast majority of its adherents, faults not less serious than those which formed the ostensible cause of the original separation—at least, in its youth; while, at a later period, it runs far ahead of the "residuum" (as the older section is sometimes politely called) in the very vices of intolerance and prescriptive bigotry which it so loudly decries. Whatever there may be of real value in its peculiar tenets has, in all probability, been already accepted by the older school, which has all along remained free from the extravagances which its recalcitrant offspring is only beginning gradually to prune away. A series of mutual recriminations arises, some just and some unjust; the schismatics are unfairly taxed in their wiser maturity with the long repented and forsaken indiscretions of their impetuous youth; the orthodox are charged with stand-still or even retrograde indolence, as though their doctrines and practices remained just the same as they were at the time when the separation took place. The fine old maxim, "When at a loss take a chance of a verdict by abusing the defendant's counsel," is put in full force; and the case of the respective schools is represented as standing or falling with the personal characters of their leaders. Of course, this leads to abundant misrepresentation, with the result often of enlisting the sympathies of generous and ardent youth on the side of what seems to be, and, to some extent, perhaps is, the cause of persecuted merit, as Mr. Pecksniff's family consoled themselves, under reiterated disappointments in their views upon old Mr. Chuzzlewit's breeches-pockets, by remarking to one another that, in the end, "Truth would prevail and Virtue be triumphant"; so the drooping spirits of the enthusiasts are cheered by similar hopeful prognostications in the pages of journals devoted to their cause; and their enraptured souls are entranced with visions of Enlightened Progress riding rough-shod over the domains of Prejudice and Error, and being enthroned, amid universal acclamation, on the proud eminence so long and so unworthily usurped. Once this state of feeling is reached, the *raison d'être* of the community is usually at an end; since they have either fairly settled on their lees, as much as the older body from which they separated, or, what is much worse, have set out on a headlong course of internecine schism and extravagance.

In bringing the above remarks to bear on the subject which forms the title of this paper, my object is not to dissuade medical students at a suitable stage of their career from duly considering the entire question of homœopathy, or from attending a course or courses at the Homœopathic Hospital, which the older students may do with great advantage, but to induce them to think very seriously before committing themselves to the style of professed homœopathists. I do this from no feeling of antagonism to practitioners of the homœopathic school, the best of whom strongly dislike the designation themselves. I practised their system myself, according to my lights, for some years, and received nothing but kindness from members of that body, for many of whom I have the very highest respect, and towards one of whom every motive of filial piety and personal veneration combines to heighten that regard. But the late Professor Henderson, of Edinburgh, whom no one, surely, will charge with having been a luke-warm or ignorant homœopathist, himself dissuaded a brother physician from declaring himself a homœopathist, not because he entertained any doubt of the latter's perfect sincerity, but because he perceived his friend to lack some of the qualities essential to every useful adherent of a new community. Although I no longer call myself a homœopathist, I have not the slightest sympathy with the ordinary style of abuse to which the opponents of homœopathy so frequently resort. The more carefully the life of Hahnemann is studied the more clearly will it be seen that, so far from having been an ignorant and designing quack, he was a man of uncommon acquirements and single-mindedness, and of a research and diligence *plus quam Germanica*. He resigned practice altogether for some years, on purely conscientious grounds, at a time when he was already earning a competence and had a family to support. During this interval he maintained himself and those dear to him by working, often during the whole night several times a week, at translations, his labours being interrupted and embittered by the "continual dropping," of which King Solomon spoke so feelingly, and which took its rise from his wife's indignation at the course which his conscience compelled him to pursue. As to his professional and general learning and abilities, Berzelius said of him that "he would have been a great chemist if he had not become a great quack;" and whatever we may think of the latter half of this dictum, there can be no doubt that Berzelius was a competent judge of chemical qualifications. Hahnemann was the respected friend of Hufeland, and one, at least, of his medical writings was commended by Kurt Sprengel, the historian. The English reader may easily form his own opinion respecting Hahnemann's acquirements and abilities by reading Dr. Dudgeon's excellent translation of the "Lesser Writings." The treatises on the "Helleborism of the Ancients" and "Suggestions for Ascertaining the Curative Powers of Drugs" may be taken as examples. The latter I consider one of the best of Hahnemann's writings, and it would have been well for himself and others if he had pushed his doctrines no further than he has there done. He points out with admirable clearness the inadequacy of chemistry and botany in such investigations, as well as the misleading character of experiments confined to the sick or the lower animals, and deduces the two great principles of experimentation on the healthy human subject and the *similia similibus*.* This appeared in 1796; the "Organon," which was published in 1810, is, in my opinion, a far inferior work. The earliest approach to anything like infinitesimalism which I have been able to discover is in a paper in Hufeland's Journal in 1801, and here the dose mentioned is the $\frac{1}{100000}$th of a grain—a colossal dose when compared with the 30th dilution. In point of fact, the cases adduced by Hahnemann in proof of his successful application of the law of similars were cases in which the mother tincture was employed, and although he afterwards maintained that he would have succeeded still better with globules of the 30th dilution, this, as Dr. C. B. Ker well remarked, is pure assertion, and may well be doubted.

Drugs administered in accordance with the law of similars must, indeed, be given in *small* doses, but "infinitesimalism" has been the bane of the whole system. Its paradoxical nature has proved its grand attraction in the eyes of visionaries of both sexes and of every age, and the motley crowd thus gathered together has done more to discredit homœopathy in the eyes of the sober-minded, and thereby to ostracise even the leaders of the school—able and accomplished as many of these are—than any scientific doctrine could pos-

* The treatise is not wholly free (1) from inconsistency, (2) from traces of fanciful doctrines, having only prescriptive authority. Thus, while we are told (p. 298), quite correctly, that the action of a drug administered by the mouth cannot be determined by its action on newly-drawn blood, because in the former case the drug undergoes a previous change in the alimentary canal, we are yet told (p. 297) that mere "'chemical experimentation' with colombo-root and morbid bile showed that that vegetable substance must be a remedy in diseased biliary secretion." On the same page we are also told that "distillation with water, by showing the presence or absence of an ethereal oil, will, with few exceptions, suffice to show whether a new remedy is of a 'heating' character."

sibly have done, even if erroneous. Every new vagary, whether in religion, science (?), or ethics, is sure to be welcomed as an ally by many of the rank and file of the homœopathic camp. And is it worth while, for the sake of this *vexata quaestio*, to forego the cordial and intimate association of the bulk of the members of a liberal profession, the incstimable advantages offered by admission to its societies and journals, with the mental activity engendered by the friction of many intelligent minds, the hearty co-operation of the highest intellects, and the widest experience in the hour of perplexity? For myself, I can truly say that in my own practice I never saw the smallest result of any kind attend the use of infinitesimals, although I have witnessed striking phenomena follow their administration by abler and more experienced hands. When I gave them at all it was in as implicit obedience to the tenets of my earlier creed as was ever paid by the most servile followers of Galen or Avicenna. There is always *this* element of uncertainty in inferring a *propter hoc* from *post hoc*, however often repeated in ordinary homœopathic practice, viz., that as by its very nature the symptoms of the drug simulate those of the disease, those occurring in the natural course of the latter are apt to be confounded with a supposed "medicinal aggravation" of the former. The problem is rendered still more complex by the factors of accidental coincidence, effects of imagination, and so forth, which enter largely into every problem of this kind. As to the alleged unacknowledged adoption by the dominant school of much that was really valuable in the teaching of Hahnemann, such as the abolition of blood-letting and "heroic" remedies generally, &c., surely such adoption is a reason rather for giving in one's adhesion to the orthodox than for standing aloof from them, even although some may think due recognition was not accorded to earlier introducers. But it is not fair to attribute all these improvements to Hahnemann, or to infer that their adoption by others was the result of conscious or even unconscious plagiarism. In the first place, blood-letting had been decried ages before Hahnemann was born by Chrysippus, Erasistratus, Jacobus, and hosts of others. Next, as to the charge of plagiarism. Most, if not all, of the other improvements which have been introduced into the ordinary method of practice since Hahnemann's time, and many of which precisely coincided with his own teaching, were probably introduced independently of him, as the natural result of the turn medical thought was beginning to take in the profession generally, and of which turn of thought Hahnemann was by no means the most sober-minded expositor. Similarly, Scheele and Priestley discovered oxygen simultaneously, but independently; and it is only fair to believe that the almost synchronous discoveries on the subject of leucocythœmia by Professors Hughes Bennett, and Virchow were not indicative of plagiarism on the part of either of these distinguished physiologists. When any science has reached a certain stage, further discoveries are inevitable, and will assuredly be made by some one—perhaps simultaneously by many independent investigators. Thus, it has been well remarked by Macaulay, that, at the stage at which mathematical science had arrived in the days of Newton and Leibnitz, the discovery of fluxions had become inevitable, so that it is idle to contest the respective claims of these philosophers to the merit of priority. Progress of all kinds is the creature of time rather than the work of any one individual.

I admit that the orthodox school would have displayed a more liberal spirit by dealing less harshly with the homœopathists, and has often written bitter things, and unjust things, against them. But the latter gave early provocation. Hahnemann's language in the "Organon" and elsewhere is hardly less abusive than Sir James Simpson's, and when all vital differences have ceased to exist, should the mutual discourtesy of polemics, even if weighted with the *vexata quaestio* of infinitesimals, be deemed sufficient to induce the medical intrant to refuse allegiance to the established school, and help to swell the ranks of the schismatics?*

* I am quite aware that the attempt has often been made to prove that the homœopathists were not willing seceders, but were expelled against their own wishes by the arbitrary and unjust bigotry of their opponents. How does all this harmonise with the language of Hahnemann himself, when he speaks of those who at any time resort to the ordinary mode of treatment as "a mongrel sect, assuming the *honourable name of homœopathists*, &c."? Is not this the distinct assertion of the existence among his consistent followers of a body of practitioners in opposition to the older school, or, as he elsewhere calls it, the "non-healing" school?

HOMŒOPATHIC MEETING.

The British Homœopathic Congress.

THIS annual gathering was held at the London Homœopathic Hospital on September 18, and was attended by over seventy medical practitioners. Dr. J. W. Hayward, of Liverpool, presided, and gave a very interesting address on "The Germ Theory of Disease," showing the relation of that theory to the homœopathic doctrine, or, as he called it, "scientific therapeutics." We quote a few extracts from this address.

Pathology and therapeutics (said Dr. Hayward), like Tennyson's "Brook," go on for ever, but the views entertained thereon—at least, by the majority of the profession—"come and go," and are continually changing. At one time diseases were to be treated with anti-spasmodics, because they were supposed to depend upon spasm of the capillaries; at another they must be met by anti-phlogistics, because inflammation was at the bottom of all morbid processes, and bleeding, purgation, and starvation were the order of the day; at another time tonics must be used in all cases, because asthenia was the root of all disease, and tonics, stimulants, and beef-tea must be poured into the luckless patients, whether the system could appropriate them or not; whilst at the present day, disinfectants and germicides, such as mercuric chloride, thymol, benzoate of soda, creasote, benzoic acid, salicylic acid, carbolic acid, eucalyptol, quinine, sulpho-carbolates, hypophosphites, and such-like substances are the means to be used, because minute living organisms, or "germs," are credited with being the cause of almost all the diseases that flesh is heir to.

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Stated briefly it may be said that the germ theory—that is, the latest, the present-day pathological speculation on the nature of disease—is, that many diseases, at least many infectious and contagious diseases, depend upon (arise from, are caused by) minute living morbid particles called "germs," which find their way into the body and into the blood. As to zymotic diseases, for instance, it is held that living pathogenetic germs or their spores having made their way into the blood, and found material suitable for their nourishment (unless prevented by treatment), they, at the expense of this material, grow and multiply in the blood and tissues at the rate of many millionfold per day, until they have exhausted this material, as the yeast germ does in the wort; and, having exhausted it, or replaced it by some of their own products, they cannot live any longer, so they die; and if, after this, the blood and nervous system are left in a state capable of carrying on the vital processes, the patient recovers; if not, he dies: the disease itself being the commotion produced in the system, either by the presence of these germs as foreign bodies in the blood, or by the loss of the material they have appropriated, or by some ferment they have produced.

. . . . . .

It is further held that the germ theory affords, and is the only one that does afford, a satisfactory explanation of the phenomena of the zymotic diseases—of their origin by infection, of their incubation, their specific character, and their definite cause and progress, as well as of the subsequent immunity from future attacks, and of natural and acquired immunity in general. The incubation-period is the time occupied by the growth and multiplication of the germs to the point of intolerance; the disease is the period of struggle between the germs and the vital powers of the individual; the convalescence is the recovery of normal action and repair of the damage done, whilst the immunity is the resulting somewhat permanently altered vital action, or altered construction of the blood.

[Dr. Hayward regards this theory as very reasonable, and does not raise an objection to it. What he objects to is that the theory should be put forward as a guide to the treatment of disease.]

Most writers on the germ theory maintain that the pathogenetic germs are *vegetal* organisms, in the form of micrococci, bacteria, bacilli, spirilla, &c.

Davaine, Pasteur, Koch, Feltz, Tyndal, and others are of opinion that the germs are in all cases bacteria, and they

refuse to recognise any alternative; this has been made very evident in Koch's searches for the cholera germ, in which nothing else but a bacterium or bacillus has been looked for. Whilst Beale appears to be of opinion that the germs are morbid bioplasts derived from previously diseased persons. It is probable that here, as in so many other cases, *in medio tutissimus ibis*—that there is truth on both sides, that in some diseases it may be the one, and in others the other, kind of germ. It would certainly appear probable that in splenic fever, chicken cholera, and the septicæmia of mice and rabbits the germ is a bacterium, for in each case it can be cultivated outside the body for several generations, and then injected with a degree of certainty approaching the absolute.

Now Beale is, perhaps, the greatest of microscope investigators of the minute structure of animal tissues and disease-germs, and one who has for years worked with higher powers than has any other investigator, except Dr. Drysdale and the Rev. Mr. Dallinger; while he is at the same time the author of perhaps the most complete treatise on the subject in any language. The powers ordinarily used by others appear to have ranged from 300 to 1,800 diameters, whilst those employed by Beale varied from 700 to 5,000 diameters; and he has for many years given especial attention to disease germs in all their relationships; much reliance may, therefore, be placed upon his conclusions.

And it certainly does appear to me much less probable that vegetal spores should cause typhus or gaol fever in man than that this disease should arise from animal germs, generated by over-crowding and by animal filth in prisons, ships' holds, and human habitations. When, however, such able and distinguished investigators disagree on the matter, we may well allow the question to remain in abeyance; nor is it necessary for us, as practical physicians, that it should be decided either one way or the other: we can go on treating disease quite as successfully whether we know the truth in this matter or not. Living germs being the cause of infectious diseases, and animal and vegetal germs being about equally resistant to our attempts to kill them, and both growing and multiplying in much the same way, it matters very little as to treatment, and even as to prevention, which they are; the same prophylaxis and treatment are required in both cases.

To homœopathic physicians pathological theories are minor matters. Taught by Hahnemann, to them the patient, not some supposed pathological state, is the object of cure: to them, the patient presents deranged vital actions and altered bodily structures that require to be rectified, and to rectify these is their object and duty. How best to do this their leader—Hahnemann—interrogated Nature, and she replied: "Find a drug that will produce a similar derangement of the action and a similar alteration of the structure, and administer that in a quantity too small to induce any other derangement, or to aggravate the existing one, and I will do the rest." Hahnemann did these, and he found Nature faithful to her promise; and so, too, have his followers.

The Hahnemann Oration.

Dr. Pope, of Tunbridge Wells, gave the annual Hahnemann Oration at the London Homœopathic Hospital on October 2. His aim was to exhibit the positive side of Hahnemann's teaching. After describing his abilities as a linguist, a chemist, and a writer, Dr. Pope said it was through translating Cullen's "Materia Medica" that he was led, by Cullen's endeavour to explain the action of bark in the cure of intermittent fever, to make experiments upon himself with the bark to ascertain its effects in health. The result was that he noticed among these effects symptoms very similar to those which appeared in patients he had attended in the Transylvanian marshes some years previously. This suggested to him the possibility that the doctrine of *Similia similibus curentur* mentioned by Hippocrates 2,000 years before, and in later times by Stahl and Von Stoerck, might explain the relation subsisting between specific remedies and the cases of disease they cured, might prove the missing link which would unite the then separate chains of pathology and therapeutics. To the solution of this question he now devoted himself. After six years of experiment and research he announced his conclusions in a paper he published in *Hufeland's Journal*, then the leading medical periodical of Europe. In 1797 he resumed practice, and settled at Konigsglütter. Never giving but one medicine at a time, and that only in a small dose, the apothecaries of the town became alarmed for their profits, and, being unable to trust the dispensing of his prescriptions to them, he prepared them himself, and gave them to his patients. According to German law it was illegal for a physician to dispense, and the Apothecaries' Guild prosecuted him for doing so. Being successful in their action Hahnemann was compelled to leave the place, and similar proceedings being instituted in other towns in which he endeavoured to reside a similar result followed. In 1810 he returned to Leipsic, to place before his medical brethren the lessons he had learned during the preceding twenty years. These lessons were chiefly the study of the action of drugs by the light of experiments on the healthy; the clinical application of drugs directed by the principle of similars; the prescribing of medicines so administered in small doses, singly and uncombined. These views represented, Dr. Pope urged, the whole of what is now described by the word homœopathy. For a medical doctrine to continue unaltered, save in matters of minor detail, for nearly a century was, it was contended, strong evidence of its truth, and was attributed to the fact of all Hahnemann's teaching having been based upon experiment; it was the result of an appeal to facts from which a strictly logical deduction was made. In order to obtain permission to teach, Hahnemann had to obtain the rank of Privat Docent, to acquire which he had to read and defend a Latin thesis before the professors. The essay he prepared and defended was described as one of the most remarkable exhibitions of genuine scholarship in the whole range of medical literature. With the congratulations of the Dean of the Medical Faculty he received his permission, and commenced to lecture and continued to do so through the ensuing ten years, when another prosecution by the Apothecaries' Guild drove him from Leipsic. Invited by the Duke of Anhalt-Coethen, he retired to Coethen, where he resided until 1835, and then responding to the entreaties of his second wife he removed to Paris, where he died in 1843. In reviewing the work of his life, Dr. Pope described it as the laying the foundations of the science of pharmacology—the science of the action of remedies—adding that he built upon these foundations. He bridged over that "wide and deep gulf which," the *British Medical Journal* had lately said "has always been fixed between the pharmacologist, labouring to elucidate the mysteries of the subtle actions of drugs upon the complicated and intricate human organism, and the therapeutist struggling to apply these results to the treatment of disease." In reply to a further statement by the same journalist that signs were not altogether wanting that the gulf was beginning to fill in and that in the not very remote future it would be successfully bridged over, Dr. Pope maintained that the gulf had been spanned; the bridge which crosses it had stood for well nigh a century. He drew attention to the indirect evidence in support of Hahnemann's doctrine, pointing out how largely the uses of remedies made known only through homœopathy were adopted by physicians who denied that there was any principle in medicine, which could point out the condition in which a drug would cure. But Dr. Pope asserted that no amount of declamation, however passionate, or of theoretical objections, however ingenious, could ever obliterate the fact that the drugs named, and many more besides them, owed their position as remedies in the forms of disease in which they were prescribed solely to the method of investigating the properties of drugs set forth and carried out by Hahnemann, coupled with the doctrine of drug selection propounded by him. It was therefore puerile to deny the existence of a therapeutic doctrine, misleading to say that there was no general principle which could guide us in the treatment of disease, while to state that the principle of similars had proved "injurious to medical science" was contradicted by the experience of every physician who availed himself of the most direct of the practical improvements which had taken place in therapeutics during the last twenty years. Moreover, such a doctrine, such a principle, had been hoped for, looked for, and longed for by Sydenham, by Alison, and especially by the late Sir Thomas Watson, who, a few years ago in an address before the Clinical Society, urged that authentic reports of trials with medicinal substances upon the human body, taken together with clinical observations, "would lead at length to a better ascertainment of the rules—peradventure to the discovery even of the laws by which our practice should be guided, and so bring up the

therapeutic and crowning department of medicine to a nearer level with those other parts, which are strictly ministerial and subservient to this." Dr. Pope urged that it was in this manner that Hahnemann worked, and it was in the same that all must work who are neither satisfied with Hahnemann's conclusions nor with the present state of therapeutics. The institution of a pharmacological section in connection with the British Medical Association was then alluded to, and an examination entered into of the means of therapeutic research the president of the section proposed to adopt, from which it was concluded that these "means" were as inadequate for the discovery of "the clue to the labyrinth of the modes of action of remedies" as they were wanting in originality. To find this clue it was argued all medical associations were shut up to taking the course suggested by Stahl, and emphasised and carried out by Hahnemann. There was no other means by which to detect the parts drugs had an affinity for, or learn the kind of action they exerted upon them.

TRADE-MARKS APPLIED FOR.

From the "Trade Marks Journal," September 17, 1884.

Applicants	Description of Goods	Number of Application	Mark
Drayton, J. H., trading as "Roydant, H. J., & Co.," 75 Acre Lane, Brixton, Surrey, wine and spirit merchants, &c.	Mineral and aërated waters, including ginger-beer	34,918	A shield with a buckled shawl diagonally, bearing the signature "H. J. Roydant & Co."
Morgan Crucible Company, Battersea, Surrey	Crucibles of all kinds, and porous cells and plates; also plumbago, a manufactured article	37,239 and 37,240	The word "Salamander"
Frost, George, 63 Powis Street, Woolwich, confectioner	An article of confectionery	37,904	A diamond bearing a drawing of a bottle labelled "Celebrated Acid Tablets, &c."
Garden & Gaye, Newcastle Wharf, Emmett Street, Mile End, E., oil refiners, &c.	Waterproofing composition ..	38,001	The words "Trade Mark" on each side of a triangle containing the words "To Ariston" in Greek capitals
Robert, Edouard, 50 Boulevard de Reuilly, Paris, feeding-bottle manufacturer	Feeding-bottles	38,237	The words "Robert's Feeding Bottle"
Weir, Ch. J., 34 Cloth Market, Newcastle-on-Tyne, wholesale grocer	Soap, common and toilet	38,259 to 38,264 38,297 38,300 to 38,307 and 38,336	Two designs of a cross combined with a ring, between them sixteen various words as follows:—"Red cross mottled," "Stone cross mottled," "Golden cross pale," "Silver cross mottled," "Pearl cross mottled," "Queen's cross pale," Blue cross mottled," "Crystal cross glycerine," "White cross curd," "Neville's cross pale," "Abbey cross pale," Charing cross pale," "King's cross pale," "Diamond cross pale," "Market cross pale," "Star cross cold water"
Posener, Adolph, trading as "A. Posener & Co., 61 Mansell Street, Goodman's Fields, E., merchant	New medical preparation for human use	38,484	The words "Tamarina Pills"
Morgan Crucible Company	Porous pots, &c.	38,530	The letter "C" in a diamond
Morgan Crucible Company	Crucibles and chemical ware ..	38,531	A crucible standing on a design of rose, thistle, and shamrock, with the words "Alexander Smith, Glasgow," all enclosed in a circle
Hockin, Wilson & Co., 38 Duke Street, Manchester Square, London, wholesale druggists	A medicine for human use	38,537	The words "Pure Menthol, Acmé brand, for neuralgia, headache, &c.," surrounded by an oval
Smith, Wm. Stockbridge, Edinburgh, chemist	Insect-destroyer	38,617	The words "The Eureka Insecticide"
Walklate, John Thomas, 37 High Street, Bristol, homœopathic chemist	Medicine for human use	38,638	The word "Nuxoline"
Sikes, Olive Logan, trading as "Cole & Co.," 21 Cock Lane, Snow Hill, E.C., patent-medicine vendor	A tonic acidulated powder, a medicinal for human use	38,846	The words "Alleu's Pepsinic, a tonic acidulated powder"
Clark, C. F. G., & Son, 238 Market Place, Dudley, wholesale chemists, druggists, and jam-boilers	Pills for human use	38,947	*A diamond bearing a pestle and mortar in a black oval, surrounded by an oval containing the words "Squire Knight's Cough and Asthma Pills," surrounded by the words "Cough no more!!!" over a black line
Clark, C. F. G., & Son, 238 Market Place, Dudley, wholesale chemists, druggists, and jam-boilers	Ointment for the eyes	38,948	*The words "Squire Knight's Eye Ointment," above two eyes
Clark, C. F. G., & Son, 238 Market Place, Dudley, wholesale chemists, druggists, and jam-boilers	Chemical substances prepared for use in medicine and pharmacy	38,949	*The words "Squire Knight"
Raymond, Jean Maric, 1 Rue Nollet, Paris, building contractor, manufacturer of disinfectant	A disinfectant..	38,962	The name "Raymond" on an oak leaf with an acorn, on a square, with extended corners, and bearing the words "Disinfectant Concentré," above the square the word "Anti-bacterien"
Dinsdale, Jas. Thos., 100 Upper Thames Street, London, merchant	A disinfectant..	39,043	A design of dense fumes studded with the word "Pam," arising from a wooden tub bearing the words "Pam. Perfection, Purity;" round the design the words "None genuine without this trade mark;" the whole on a white ground in a circle
Dinsdale, Jas. Thos., 100 Up. Thames Street, London, merchant	A cleansing-powder, being a detergent	39,236	
Burrow, W. & J., Great Malvern, Worcester, mineral-water merchants	Mineral and aërated waters.. ..	39,059	The word "Alpha"
Austin, Josiah, trading as "Austin & Sons," 395 Nechells Park Road, Nechells, Birmingham, manufacturing chemist	Starch-glaze	39,060	A design for a label, bearing a picture of a nigger-minstrel, and the words "Use Austin's Fireproof Starch-glaze," &c.
Wyer, Edward, and Harold Hartley, trading as "Pure Water Company, Queen's Road Extension Park Town, Battersea, mineral and aërated-water manufacturers	Mineral and aërated waters ..	39,117	A design of icebergs and two polar bears on a dark ground within a circular band, bearing the words "Pure Water Company." Used by applicants since 1869
Trentham, Jas., Great Bridge, Tipton, Staffs., aërated-water manufacturer	Mineral and aërated waters ..	39,192	Design of the words "Trade Mark," and a hand discharging a sypbon into a tumbler. Used nine years before 1875
Judson, D., & Sons, 77 Southwark Street, London, filter manufacturers	Filters	39,198	A drawing of "The Olde Water Conduit," illustrated on page 463 of the September issue
Bogue, Jackson de la Cour, trading as "Harvey & Co.," 6 Bachelor's Walk, Dublin, veterinary chemist	Veterinary medicines and applications	39,354	The signature "Harvey & Co." with a flourish

* The above three marks in use by applicants and predecessor in business 33 years and upwards before 1875.

From the "Trade Marks Journal," September 24, 1884.

Applicants	Description of Goods	Number of Applications	Mark
White, Henry, & Co., 50 and 51 Quay, Waterford, grocers and special merchants	Salt for dairy purposes	37,187	The words "Patent Butter Salt"
Harman, Alfred Hugh, 4 South Park, Ilford	Paper prepared for use in photography	38,323	A design for a label, "The Britannia Alpha Paper, Marion & Co., 22 and 23 Soho Square, London, W."
Harman, Alfred Hugh, 4 South Park, Ilford	Paper prepared for use in photography	38,324	"The Britannia Argentic Bromide Paper, Marion & Co., 22 and 23 Soho Square, London, W."
Bush, Wm., & Co., York Street, Walworth, S.E., manufacturing chemists	Colouring for cheese and butter and other articles of food	38,667	Picture of a dairy-maid and vertical churn, with the words "Marigoldine, a new preparation for colouring butter, cheese, &c."
Starkey, Ebenezer Benjamin, 2 Lower Notting Hill Terrace, Notting Hill, London, W., chemist and druggist	Saline fluid magnesia, a medical preparation	38,786	The words "Starkey's original saline magnesia, antiseptic aperient, alterative antibilious," arranged as a design
The Phospho-Guano Company (Limited), Seacombe, Cheshire	Artificial manure	38,984	The words "Phospho-Guano," used by applicants and predecessors in business 13 years before 1875
Tildesley, Thos., 68 Broad Street, Park Gate, near Rotherham, herbalist	Medicines for human use	38,930	The words "Trade Mark," and figures of a nude man and woman pulling at opposite ends of a knot of rope
Tildesley, Thos., 68 Broad Street, Park Gate, near Rotherham, herbalist	Medicines for human use	38,931	The words "Tildesley's Extract of Roots," in certain kinds of type.
Bell, Pembroke & Co., 44 Ossory Road, Old Kent Road, Surrey, drysalters and sundrymen	Bitters, not medicinal, nor alcoholic, nor aërated	38,985	A label with the words "The Chuquasca Bitters. The best tonic and appetiser (genuine contradicente). These bitters possess the delicate flavour and aroma of the orange, and being manufactured in silver-lined cylinders, metallic impregnation is rendered impossible. Bell, Pembroke & Co., sole proprietors. Price, 2*s.* 6*d.* per bottle"
Birley, Samuel, Welney House, 49 Haverstock Hill, Middlesex	Medicines for human use	39,132	The words "Dr. Birley's Anti-catarrh"
Dinsdale, Jas. Thos., 100 Up. Thames Street, London, E.C., merchant	Disinfecting-powder	39,425	A picture of old London Bridge in a circle, surrounded by the words "Trade Mark. Old London Bridge"

From the "Trade Marks Journal," October 1, 1884.

Stephenson & Travis, 12 Hopwood Street, Liverpool, oakum manufacturers	Antiseptic surgical dressing, not medicated	36,500	The word "Stypium" in white letters on a black ground, transfixed by an arrow; used by applicants and predecessors three years before 1875
Lyon, John, trading as "John Lyon & Co.," Lord Nelson Street, Liverpool, mineral-water manufacturer	Mineral and aërated waters.. ..	37,497	A fancy-bordered label, with the words "La Perla de las Autillas," and space for additional words
Lyon, John, trading as "John Lyon & Co.," Lord Nelson Street, Liverpool, mineral-water manufacturer	A beverage of the same nature as ginger-beer	38,608	A design of three B's, with the words "Three B's," and the signature "John Lyon & Co."
C. H. Klinger's Sohne, Nuruberg, bronze-powder manufacturers	Bronze powder..	38,246	A design of a fiend smoking a pipe, and carrying under his arm a plank, with the legend "Trade Mark"
Gosnell, John & Co., 93 Upper Thames Street, E.C., perfumers, &c.	A perfume	38,373	The words "Cherry Blossom"
Brandreth, H. Daubeney, 22 Hamilton Square, Birkenhead, merchant	Corn-plasters	38,609	The words "Allcock's Corn Shields"
Brandreth, H. Daubeney, 22 Hamilton Square, Birkenhead, merchant	Patent medicines	39,451	The words "Allcock's Tonics"
Brandreth, H. Daubeney, 22 Hamilton Square, Birkenhead, merchant	Plasters for human use	39,452	The words "Allcock's Plasters"
Brandreth, H. Daubeney, 22 Hamilton Square, Birkenhead, merchant	Patent medicines and ointments ..	39,453	The words "Allcock's Ointment"
Smith, H., & Co., 26 Southampton Row, W.C., patent-medicine proprietors	Medicines for human use	38,676	The words "Positive Remedies," in white letters on a hack ground, used one year before August, 1875
Davis, William, Malvern Link, Worcestershire, gentleman	A patent medicine for human use..	38,772	A steel engraving of the portrait of John Wesley, and the signature "John Wesley"
Cooke, Jas., M.R.C.V.S., Elder House, Elder Street, Scarborough, veterinary surgeon	A veterinary remedy	38,831	A huntsman's whip with the lash twined into three loops, containing respectively the words "Cooke's Specific Veterinary Remedy," "Trade Mark," and the monogram "J. C."
Pond, Geo., Peter, 68 Fleet Street, London, chemist and druggist	A non-alcoholic and non-aërated beverage	38,836	A design for a label with the words "Genuine Acorn Wine, a non-alcoholic beer. Sole inventor and proprietor, G. P. Pond, &c. Biscuit utile dulci. Trade Mark," and a picture of a bunch of acorns
Pond, Geo. Peter, 68 Fleet Street, London, chemist and druggist	An aërated beverage	39,268	
Rohrs, Hermann, trading as "Jackson, Rohrs & Co., Stockbrook Street, Derby, elastic-web manufacturer	Instruments, not medicated, in relation to health, manufactured from indiarubber, &c.	38,859	The monogram "J. R. & C.," surrounded by the words "Durability, elasticity, strength," on a shield
Hughes, Jacob, Clive Place, Penarth, Glamorgan, manufacturing chemist	Medicine for human use	39,076	The words "Miss Pike's powders for fits and nervous complaints"
Kirk, Benj. Reid, M.R.C.V.S., Snaith, near Selby, West Riding of Yorkshire, veterinary surgeon	Veterinary medicines	39,137	Drawing of bottom of horse-hoof, bearing two instruments crossed and 4 inverted horseshoes enclosing initials B. R. K. K.; all in a square
Bovine Cattle Spice Company, 230 Clapham Road, S.W., manufacturers of cattle foods and medicines	Foods for cattle and horses	39,317	The words "The Bovine"
Joyce Theophilus Larking, trading as "Liebig & Co.," 12 York Buildings, Adelphi, London, patent-medicine proprietor	An article prepared for use in medicine and pharmacy	39,325	The words "Liebig's Chemical Food," used by applicant and predecessors in business upwards of 15 years before September 1, 1884
Schick, Aug., 55 Eschersheimerlandstrasse, Frankfort-on-the-Main, manufacturer	Leather-varnish and leather-blacking	39,390	Head of a Moor in an oblong, with the words "Othello, Schutz-marke. Aug. Schick, Frankfort."
Scott, John, trading as "J. Scott & Co.," 52 West Street, Sheffield, opticians	Spectacles and eyeglasses	39,477	Drawing of the Sun wearing spectacles; within the corona the legend "Luminous ✲ Chemical ✲ Crystal. L.C.C."
De Marbella, José Alarcon, 38 Hornsey Street, Holloway Road, N., Professor of Medicine	Medicine for the cure of gout and rheumatism	39,512	Drawing of two hands, one gouty and distorted, labelled "Before," the other natural, labelled "After," with the words "Trade Mark," surrounded by the legend "Alarcon de Marbella's Specific"
Ichthyol Gesellschaft Cordes, Hermanni & Co., Hamburg, merchants	Chemical substances used for veterinary and sanitary purposes	39,599	Drawing of a dove descending in the centre of a halo; beneath it the word "Ichthyol," on an oval light background; the circle completed by two crescents, bearing the words "Ichthyol Co., Hamburg," in white letters on a dark ground.
Ichthyol Gesellschaft Cordes, Hermanni & Co., Hamburg, merchants	Ditto for use in medicine and pharmacy	39,600	

From the "Trade Marks Journal," October 8, 1884.

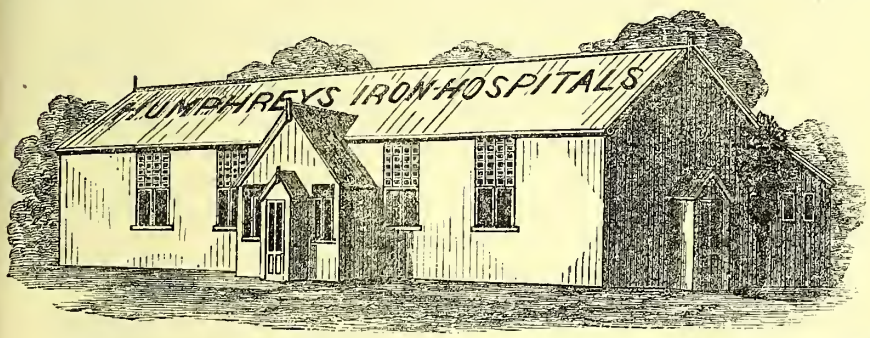
Applicants	Description of Goods	Number of Application	Mark
Collins, John William. Redlynch, Bruton, Somerset, game-breeder	Medicines for game and poultry ..	36,999	Picture of a group of birds, cock, hen, turkey, pheasant, English and French partridges
Younger & Ridley, Brampton, Cumberland, chemists	Liquids for making non-intoxicating and non-aërated beverages	36,414	The words "Temperance Wine Mixtures"
Ballard, F. A., & S. Rogers, 1 Crowndale Road, Camden Town, N.W., chemists and dentists	A liquid dentifrice	38,136	The words "Ballard's Odontoline" in a fancy design
Stephenson & Travis, 12 Hopwood Street, Liverpool, oakum manufacturers	Antiseptic surgical dressing, medicated	38,161	The word "Stypium," in white letters on a black ground, without the arrow used in the trade-mark for unmedicated dressings
Bush. Wm., & Co., York Street, Walworth, S.E., manufacturing chemists	Colouring for cheese, butter, and other articles of food	38,668	The words "Marigoldine, a new preparation for colouring butter, cheese, &c.," and a picture of a dairy-maid working a horizontal churn
Booth, Wm., 101 Queen Victoria Street, E.C., General of the Salvation Army	Common soap	38,718	The words "The Salvation Army," within two oval lines
The Aire and Calder Glass Bottle Company (Limited), E. Breffit & Co, 83 Up. Thames Street, E.C., manufacturers of glass bottles and wood cases	Glass bottles	38,957	The letter "B," within its upper loop the letters "A. & C.," "B. Co." within the lower hoop; the whole enclosed in an oblong
Hordern Brothers, Pitt Street, Sydney, New South Wales, and 11 Queen Victoria Street, London, merchants	Perfumery, including toilet articles, preparations for the teeth and hair, and perfumed soap	39,023	A laughing jackass (bird) killing a snake, in a triangle; the words "The People's Friend" in the angles, and the words "Hordern Brothers, Sydney and London," in a band round the triangle, with the letters "E. J. A." at the angles
Salter. Geo., Corn Exchange Passage, Birmingham, brushmaker and perfumer	A preparation for the hair	39,211	A plain label with these words, "Dr. Lincoln's 'Tingo Coma.' This is one of the remarkable discoveries of the present day, producing a permanent colour to the whiskers, eyebrows, and moustaches. It is not in the slightest degree injurious to the skin. All my preparations bear my signature, thus: A. Lincoln. Sole wholesale agent, G. Salter, London, W.C."
Salter, Geo., Corn Exchange Passage, Birmingham, brushmaker and perfumer	A preparation for the hair	39,212	A fancy label, "Agent for Dr. Startin's Medella or anti-scurf pomade; allays all irritation of the skin of the head," with the signature, "J. Startin," written diagonally across it
Sikes, Olive Logan (widow), of 21 Michael's Grove, Brompton, S.W., trading as "Cole & Co.," 21 Cock Lane, Snow Hill, E.C., patent medicine proprietors	Pills for human use, and all other preparations contained in Class III.	39,645	Pictures of an Englishman, American-Indian, Chinese, and Africander, each holding up a globe, the Englishman in one hand, the others in two, with the signature "Cole & Co.," and the words "Trade Mark"
Cox & Co., Acton Street, Haggerston, E., brewers of non-intoxicating beers	A non-intoxicating and non-aërated beverage	39,697	A picture of the top of a railway signal-post, with the words "Anti-Burton" on the two arms
Cox & Co., Acton Street. Haggerstone, E., brewers of non-intoxicating beers	A non-alcoholic aërated beverage ..	39,699	

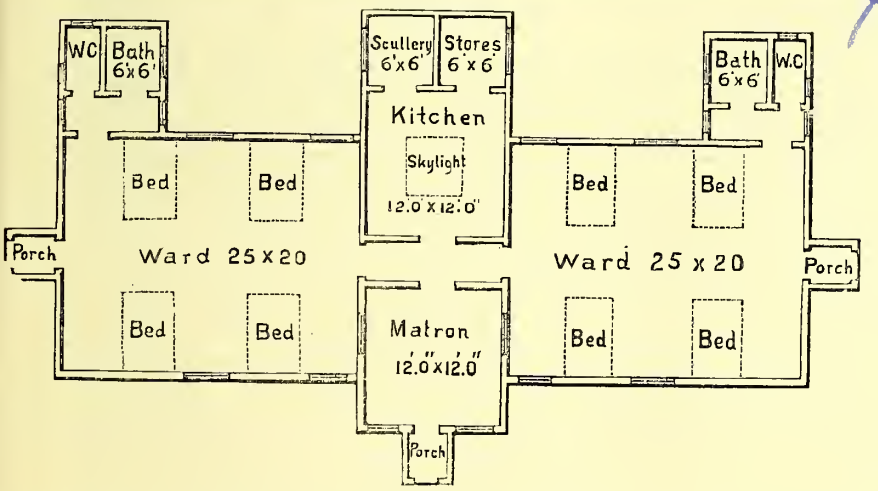
INFANT-FEEDING IN ILLNESS.

DR. KEATING writes in the *Archives of Pediatrics*:—"If a child is so weak and exhausted that it will not digest the mildest form of prepared food, and it is impossible to obtain the breast, it is useless to weaken the condensed milk, or whatever we use, to such a degree as to make it absolutely valueless as a nutrient. The proper thing to do is to give some form of food which requires but little action of the digestive juices, or to prepare the food so that it is partially digested beforehand. I have used for some time, with great advantage, egg-albumen dissolved in water as a food for sick children when the stomach is intolerant of ordinary milk food. I have also observed that gum-arabic water will nourish for a surprisingly long time and allay irritability. Barley food would be valueless in a case of this kind, and pure cow's milk, diluted to resemble as closely as possible the mother's milk, would be regurgitated. In such cases the preparation of milk which has undergone partial digestion by the pancreatic ferment, in an alkaline condition, I have found most useful. The preparation is one which must be made with care, and according to the following directions:—Into a clean quart bottle put a powder of 5 grains of extractum pancreatis, add 15 grains of bicarbonate of soda, and a gill of water; shake, and then add a pint of fresh milk. Place the bottle in a pitcher of hot water, or set it aside in a warm place for an hour or an hour and a half, to keep the milk warm, by which time the milk will have become well peptonised. When the contents of the bottle acquire a greyish-yellow colour, and slightly bitter taste, then the milk is thoroughly peptonised; that is, the casein of the milk has been digested into peptone. Great heat or cold will destroy this digestive action; so, to prevent all further action when you think that digestion has proceeded far enough, at once place the bottle on ice, or into a vessel of boiling water long enough to scald the contents, and it may then be kept like ordinary milk. The mother should be warned to frequently taste the milk during its digestion, and as soon as the bitter taste is in the least apparent, the bottle should be placed on the ice for cooling, as in these cases it is sufficient to partially peptonise the milk. I mention these facts particularly as, strange to say, I have always failed with it in hospital practice, whereas in private I have had some excellent results, owing, I think, to the extra care in preparation. Whey is another admirable alternative in these cases. It may be made with wine when there is great weakness; but mothers do not often know how to make wine-whey. The proper method is, when the milk is boiling, to put in a wine-glassful of sherry, say, to the pint; and if the curd does not separate, then add more wine until it does. As soon as you notice separation of the curd, add no more wine, but let the mixture boil for a time, until the whey and curd have become thoroughly separated, consuming about five minutes. This should be thoroughly strained. It has been recommended to use lime-water in the feeding of infants and young children. I am opposed to its indiscriminate use. I have seen children who could not tolerate even the weak preparation of the Pharmacopœia. Undoubtedly at times it may arrest vomiting, as we all know, both in children and adult practice; but I much prefer, when it is necessary to use an alkali—and if you use cow's milk raw for a young babe, it is always advisable to see that it is made alkaline—to do it with a small quantity of bicarbonate of soda. . . . I have one word of caution to give you in regard to the use of sucking-bottles. They are certainly useful as labour-saving machines in early infancy, and when thoroughly cleansed and carefully watched are, no doubt, indispensable; but I have long come to the conclusion that if you can persuade the mother and nurse to take the time and feed the child that is old enough to manage by the cup or spoon, the word colic will seldom meet you in your practice. I am convinced that in institutions for foundlings, if it could be possible to discard the bottle, the percentage of deaths would be much diminished."

MEDICAL, PHARMACEUTICAL, AND KINDRED TRADES EXHIBITION.

THIS exhibition was opened at Humphrey's Hall, Knightsbridge, Hyde Park, on Monday last, October 13. When our representative visited it, a day or two before the opening, it was in a very incomplete state. This, indeed, seems the normal characteristic of all exhibitions; like mushrooms, a few hours serves them to complete a growth for which hidden preparations have long been made. By the opening day everything was in good order. One of the chief attractions of the exhibition will, undoubtedly, be a portable iron hospital, with a lining of matchboarding, which has been constructed under the supervision of the University College Hospital authorities. The main building is oblong. There is at each end a ward 25 feet by 20 feet for four beds, and an





entrance through a porch. The room is 13 feet high, and the four windows, 9 feet 6 high, reach quite to the ceiling, so that there can be no accumulation of foul air above the lintels of the doors and windows. Each ward is provided with water-closet and bath in a little outbuilding isolated from the ward by a short passage with a window at each end, the bath-room having one window and the closet two. At the centre of the building are found several other rooms built out. The matron's room (12 feet by 12 feet), entered from the main porch, is provided with a window overlooking each ward, so that everything going on is beneath her eyes. Next comes the passage from one ward to the other, then some store-rooms, occupying the place marked as kitchen on the plan, and a covered passage leading outside these to a kitchen quite isolated from the other parts of the building. At first it was intended to place it as marked, but it was found that this would cause the wards to be filled with the odours of cooking, and the kitchen is now built at the back of the scullery and store. Incidents in hospital work are to be represented by lay figures, and everything is to be under the supervision of the sisters from the University College Hospital.

Messrs. Burroughs & Wellcome as usual come well to the front. They have an advantage we do not possess, for their public changes with each exhibition, while our report goes always to the same well-tried friends. While they naturally repeat the display of their well-known staple articles we must endeavour to avoid repetition by referring only to novelties. Gamgee sponges, unmedicated and antiseptic, are shown here in the flesh, or rather in the fibre. A mass of elastic vegetable fibre is surrounded by a layer of absorbent cotton, and covered with absorbent muslin. While not so elastic as good sponge, it is almost, if not quite, as absorbent, and cheap enough to throw away after the first time of using. This is their great advantage. To render them antiseptic when wanted they are prepared with a small glass capsule in the centre holding enough of the antiseptic material, carbolic acid, eucalyptus oil, iodoform, or sanitas, to render the whole mass antiseptic without saturating it too much. The capsule is easily broken when the effect is needed, while the sponges can be preserved indefinitely, and will always be ready for use. Hypodermic cases are shown here, each provided with two needles, a graduated syringe, and a selection of Wyeth's compressed tablets of medicines administered in this form. The absence of all liquids, the ease with which a drug can be preserved till wanted for use, and the readiness with which an injection can be prepared must be great advantages.

The Dennison Manufacturing Company, of Boston, New York, Philadelphia, Chicago, Cincinnati, St. Louis, and 7 Shoe Lane, London, make their first appearance at exhibitions in this country, at any rate since the establishment of their London house. Their leading articles may be roughly described as pharmaceutical stationery. One refinement, not yet general here, is a series of cut powder-papers, in seventy-three sizes and shapes, put up in packets of 1,000. It seems probable that the cutting into sizes might be effected with sufficient economy on a large scale to provide profit for the cost of distribution. Then we have impervious boxes, much like our old friends the chips, but a little stouter, better finished, and provided with a shoulder. They are made by gluing veneers transversely, which is said to render them impervious to greasy substances, and gives them greater strength. Though they do not look so well as e.e. pots they are lighter and, perhaps, less liable to break. Some are stained the colour of American walnut. All sizes are provided, and in some cases they are nested. Some, we noticed, were about double the depth of our ordinary English shapes. The manufacture of chip boxes from willow-wood has, we understand, been almost abandoned in this country, a few Norwich firms being almost the only survivors. We do not know if this results from a change in the fashion, leading to the disuse of chip boxes; or if the Continental manufacturers have monopolised the market. Slide-lid wooden postal-boxes, turned-wood boxes, sealing-wax, copying-pads, and absorbent cotton occupy sections of the case. A leading position is given to direction-tags of various kinds. Sponge-tags are manufactured from rubber cloth, with a tinned-wire hook for attaching to the sponge. Marking-ink should be used for writing on them. "Silver white," a.

polishing powder made by Sam M. Miller, of New York, is also shown.

Messrs. Hearon, Squire & Francis, for the first time in their history, make a display at an exhibition. They have evidently profited by the experience of others who have been earlier in the field, and have little or nothing to learn. Druggists have more to learn about the firm. We doubt if many scores of them know that Messrs. Hearon & Co. manufactured a tooth-soap, "coal-tar saponine." Its light has been hidden under an eminently respectable bushel. A malted food for infants is manufactured by the firm, and sold in bulk for chemists to put up in their own packets. This is a useful innovation. The reputation of malted foods has already been made—first by Liebig, whose very troublesome, though effective, process has been put out of favour subsequently by firms who have advertised their own secret preparations. If a chemist will take the trouble to master the physiology of the matter, he will be in a position with this article to push all other foods out of his own particular market. A new essence of ginger, very pale and remarkably pungent, is shown here for the first time. It is made by a new mechanical process, discovered almost by accident. It is said to give a very fine flavour to aërated beverages. Among the fine specimens of drugs displayed are—(1) A sample of the drop gamboge that came into the market about twelve months ago for the first time for nearly thirty years, the whole parcel being purchased by this firm; (2) decorticated liquorice-root, cut into wads about $\frac{3}{8}$ inch thick; (3) Mangalore cardamoms, picked in the course of years from parcels of the ordinary kind. A full line of oleates is shown, also of fluid extracts.

Messrs. Thomas Christy & Co., of Fenchurch Street, as usual, have several novelties. Specimens of the papaw fruit from Jamaica, preserved in glacialine, will prove interesting to many. One variety is like a large smooth melon, elegantly fluted, of a fine semi-transparent green. Another variety is more globular. The male and female flowers are also shown preserved in fluid, the dried leaves and seeds and the papaine, the active digestive principle, prepared in Jamaica in the form of a pure white powder. A Mexican fern, perhaps allied to *Filix mas*, and used like it as a tapeworm remedy, is shown under the name of "Helada macho." An exquisite little fern from the same country is exhibited, not as a drug, but as a novelty. The delicate little fronds are about 5 inches long, rigid, and reduced to little more than the vein, giving it quite the appearance of a coralline. No one would suspect it to be a polypody with the phenomenal name *Polypodium Friedrichstalianum*. Rhinacanthus extract, used in eczema, and *Eupatorium amarissimum*, are both shown from Mexico. The latter has been sent over as a hop substitute. It is a handsome foliage plant, with leaves 18 inches long or more. The Yarkasura nut from British Guiana seems to have a future. The natives anoint their bodies with some preparation of it, and allege that it protects them from the bites of mosquitoes and all other insects! It is also used with crab or carapa oil (from the seeds of *Carapa guianensis*) for the cure of ringworm and other skin diseases. The seeds of *Hydnocarpus wightianum*, though very unlike chaulmoogra seeds, have exactly their taste and smell, and are sold in place of them in the Indian bazaars.

Mr. Poths has a fine display of shop bottles and jars, bottles in non-actinic glass, and blue with gilt lettering, pink shop-jars, wedgwood funnels and mortars.

Messrs. J. M. Smith & Co., of 38 Borough Road, London, have a large display of pink carbolic deodorising powder and disinfecting cleansing powder for scouring floors, &c. The trade in articles of this description must have enormously increased during the last ten years, and the number of new preparations introduced has probably never been actually reckoned up. If there should be any threat of an approach of cholera next year the demand will be unprecedented, for a knowledge of the virtues of disinfectants has percolated into lower ranks of society, where their use was resented in previous visitations.

Messrs. Pache & Co., and Mr. F. Muller, of 79 Leadenhall Street, show very large collections of glass eyes. The demand for these must be larger than is generally suspected. Certainly it would be difficult to detect these in company with the natural products. In Mr. Muller's show an interesting feature (if the term may be used) is a series of artificia imitations of diseased conditions of the different parts of the eyeball. We cannot say if all these reproductions are accurate, but they have a hideously realistic appearance.

Messrs. W. J. Bush & Sons, Artillery Lane, have their usual handsome display. Khoosh bitters, Bingley's ginger ale, Chevalier's capsules, Liebig Company's extract of meat, Stower's lime-juice, and Cibil's fluid extract of beef (Edward Weber, agent, 181 Wool Exchange, Coleman Street, E.C.), Scott's Midlothian oat-flour, Bracher's "Desideratum" mixers, Silicated Carbon and Maignen's filters, are all represented.

Messrs. Thompson, Millard & Co., Curtain Road, have one of the prettiest shows in the hall. There is a fine wall-case, with counter-cases surrounding it. The display comprises sundries of all sorts, surgical instruments, and the like. We noticed perfumes in some pretty little bottles, the section of which would be like a trifid leaf, with rounded segments. This design has been newly registered. We see also that this firm owns William Schweitzer's dandelion or taraxacum coffee, dandelion cocoa, soluble sea-salt, and insect powder. The catalogue informs us that special inducements to push these articles are given to the trade. Enemas, feeding-bottles, and respirators have a large share of space devoted to them. Breast-exhausters are shown with box-top corks, to allow them to be readily cleaned. There is also displayed a new form of spray-diffuser, for sick-rooms, greenhouses, &c.

THE ZOEDONE COMPANY.

Annual Meeting.

THE balance sheet for the year ending June 30, 1884, shows a loss on the general trading of the year of 1,096*l.* 16*s.* 8*d.* Omitting the items carried over from previous balance sheet, we find that 2*l.* 14*s.* has been expended on plant and fixtures, and 29*l.* 14*s.* 11*d.* written off as depreciation of furniture; sundry debtors considered good, 3,784*l.* 19*s.* 6*d.*; stock-in-trade estimated at 3.251*l.* 0*s.* 11*d.*; cash, 1,787*l.* 7*s.* 11*d.*; exceptional losses ascertained during the year (including bad and doubtful debts, and over-valuation of stock-in-trade, &c.) for which the late management is said to be responsible, 2,751*l.* 16*s.* 7*d.*, to which must be added 10,451*l.* 2*s.* 8*d.*, loss as shown in the last balance sheet. London expenses, &c.: 645*l.* 11*s.* 6*d.* (including secretary's salary and rent of offices, 145*l.* 10*s.*; auditors' fees, 1883, 50*l.*; directors' fees, 483*l.* 17*s.* 5*d.*, of which the directors had returned 125*l.*—358*l.* 17*s.* 5*d.*; petty charges, 91*l.* 4*s.* 1*d.*); law costs, 277*l.* 16*s.* 2*d.*; Wrexham salaries, 678*l.* 6*s.* 8*d.*; managing director's salary, 109*l.* 12*s.* 4*d.*; advertising, 2,545*l.* 1*s.* 9*d.* The income, including royalties, shows profit on the year's trading, less Wrexham salaries, 2,218*l.* 3*s.* 11*d.*; rebate of interest charged on previous account, 149*l.* 10*s.* 4*d.*; transfer fees, 3*l.* 18*s.* 6*d.* The law costs are not likely to recur; the effect of the advertising was felt only in the last six weeks of the financial year, and will be more noticeable in the next account. It is estimated that the expenditure under this head will next year be less than 1,000*l.*

The fourth annual meeting, adjourned from August 28, was held at the Cannon Street Hotel, London, on October 9. The report and balance-sheet were taken as read. The chairman, Mr. John Brierley, after remarking on the change in the directorate at the last annual meeting, explained the matters referred to in the report. The offices had been removed from Abchurch Lane to 80 Coleman Street, with an immediate saving in salary and rent of about 400*l.* a year. The offices at Abchurch Lane were held by a sort of Box and Cox arrangement; no room was set apart for the directors, whose meetings were liable to constant interruption, and no books of account were at hand for reference. To obtain the account-books it was necessary to threaten legal proceedings before any information about them could be obtained. (Shame.) It was then found that the liquidation of the old company had not been closed, although it had been represented to be merely a formal step necessary for handing over the business of the old company to the company reconstructed so as to allow it to deal in mineral waters. The liquidator of the French Company had made a claim for the

return of the consideration money paid for the French patents. This had been withdrawn, but the legal expenses incurred in resisting it had been heavy. It is expected that the liquidation of the old company will soon be closed.

The business at Wrexham had been expensively conducted. The travellers had been paid high salaries and travelling expenses. They had now been dismissed, and Mr. Wm. Barker, one of the directors, had been appointed managing director, at a salary of 150*l.* a year, to devote most of his time to the business of the company. It was found that business had been conducted very loosely. Engagements had been entered into without the terms being recorded in any way, and much time could be occupied in enumerating the delinquencies of the former board. Book debts to a large amount entered as good had been found bad or very doubtful, and had been written off; they amounted, with over-valuation of the stock-in-trade, to 2,751*l.* 16*s.* 7*d.*

Legal proceedings had been initiated against the former directors to recover sums improperly retained by them.

The balance-sheet was more satisfactory than could be reasonably expected. The loss on the year had been decreased to 1,095*l.* Exceptional expenses had been incurred to revivify a business that had been almost killed by mismanagement. These might fairly have been spread over several years, but have been all included in the present balance-sheet. He moved the adoption of the report.

Mr. BARKER seconded. He thought the profit and loss account was more favourable than it appeared. The advertising expenditure had been exceptionally heavy, and had affected the sales last year only during the last six weeks. Since June 30 the sales had much increased, and were likely to continue to do so. Zoedone was now sold at the price of lemonade, and in fair competition would defeat it. He had visited most of the large towns in North Wales, and next spring the number of retailers of zoedone would be increased five-fold. The sales during the current year had been three times as large as those during the corresponding months of 1883. There were now at least four times as many retailers of zoedone in the country, and six times as many in London, as at this time last year. All zoedone was now manufactured dry, and the syrup had been improved.

A lively discussion followed.

The first speaker, Mr. MACDONALD, asserted vigorously that in justice to the shareholders every legal step possible should be taken to recover something from the promoters and directors. He thought it very important that the company should have an establishment of its own in London, independent of the present licensees.

Another SHAREHOLDER asked if it would be possible to remove the works from Wrexham, which was rather out of the way. It would be wise to ascertain if those who were to be sued at law were substantial men able to pay damages if cast.

Another said that if it had been fairly stated in the prospectus that 85,000*l.* was to be paid to the patentee and promoters, not a share would have been taken up by the public.

Another remarked that if he had known these facts he would not have taken one of his 200 shares. He was shareholder in two other companies, one of which had successfully recovered large sums from the promoters, while the other had spent 40,000*l.* in a vain attempt to do so. The directors should be careful about commencing proceedings.

Yet another, a shareholder to the extent of four figures, had been induced to purchase shares by the flaming prospectus, and by letters written to him subsequently, stating that valuable concessions had been obtained from Messrs. Barrett & Co., which alone would pay 10 per cent. on the capital.

Mr. ELLERTON asked if any efforts had been made to push the sale of aërated and mineral waters.

A SHAREHOLDER held that it was their duty to prosecute the late directors. Money might not be recovered, but if their nefarious proceedings could be stopped, and themselves punished, it would be a great satisfaction to many shareholders.

A previous speaker said he was not for throwing good money after bad. He wanted profit like most others, not revenge, and urged the directors to be cautious about initiating legal proceedings.

A SHAREHOLDER said he understood that provincial licensees paid a royalty on sales only. This did not encourage them to push it. If, however, each paid a small royalty, say 5*l.* 5*s.* a year, he would be anxious to see his money back, and would have more inducement to increase their sales.

One of the shareholders had lately visited the Wrexham Works. He thought it was monstrous to have such a factory, formerly employing 250 hands in full work, now a desert with 20 men in it. To have one management in Wrexham, costing 700*l.* a year, and another in London, was extravagant. Capital would be required to work the London business when the agreement with Barrett & Co. lapses, and he would suggest that the royalty paid by them should be put aside exclusiveiy for that purpose.

Mr. BARKER, in reply, said the Wrexham Works would not fetch a reasonable sum for any purpose but the manufacture of aërated waters, and if sold now would involve a heavy loss. The arrangement with Barrett & Co. would terminate in three years from next December.

One SHAREHOLDER said that Messrs. Barrett & Co. would be quite willing to cancel their agreement. It was hardly worth while to quarrel with them while they contributed 66 per cent. of the profits.

The CHAIRMAN remarked that Messrs. Barrett & Co. had made a fair compromise, and had honourably observed it. It still had three years to run. He believed that over a hundred bottling agencies had been established by Mr. Barker's exertions within the year. The account-books had only been in their hands within the last few weeks. The directors had gone through them, and had got up a case for counsel. If so advised legal proceedings will be taken.

The report was then carried unanimously. The retiring directors, Captain Floyd and Mr. Barker, were reappointed, also the auditors.

The meeting then resolved itself into an extraordinary general meeting.

Mr. BARKER said that in his opinion the capital of the company must be reduced to reasonable limits. A third of the original capital had been paid to the patentee; half had been paid to a man whose only claim to it was that he had advanced 15,000*l.* at 8 per cent. interest, which money was repaid to him in full with the interest. This left the company with a capital of 15,000*l.*, and yet the factory and plant at Wrexham had been purchased for 17,000*l.*, so that the company started without capital, the vendor being content to let the purchase-money rest for a while. The sum paid was far in excess of the real value, and a loss of at least 5,000*l.* must be experienced on any sale. The goodwill, though apparently worth nothing according to the Stock Exchange quotations, was considered to be of some value by the directors, who put it down at 12,000*l.* He therefore moved according to public notice,

"That the capital of the company be reduced from 100,000*l.* to 25,000*l.*"

Mr. BRIERLEY seconded, saying that the only object was to write off money actually lost by gross mismanagement, in order that the payment of dividend may be sooner revived. The secretary of the Stock Exchange had been communicated with, and it was found that the reduction would not affect the quotation there. Indeed, the quotation had nearly doubled since the report appeared.

The resolution was carried *nem. con.*, when the chairman announced that he held proxies in favour of it to the extent of 25,000 shares.

Mr. BRIERLEY then moved, and Mr. BARKER seconded a resolution,

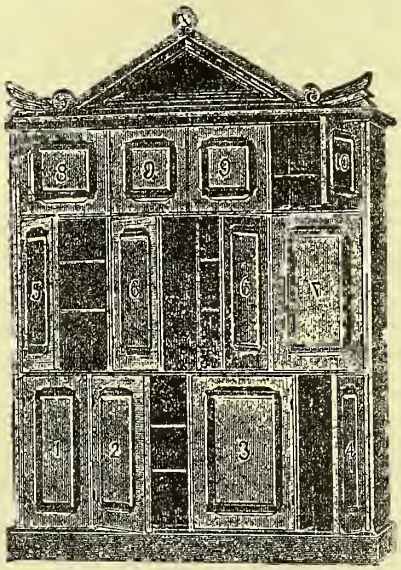
"That the said reduction be effected by reducing the nominal value of each share, from 1*l.* to 5*s.*" Carried *nem. con.*

The meeting terminated with the usual vote of thanks.

CHAMOIS LEATHER.—The *Drugman* says:—"It is too common an error that chamois skins are derived from an animal named the 'Chamois.' The skins really are made from the flesh-side of sheepskins, soaked in lime-water, and also a solution of sulphuric acid. Crude oil from fish-rendering establishments is poured over them, and they are afterwards carefully washed in a solution of potash. To restore their flexibility, permanent washing in strong suds made of olive oil and potash with a little water, and afterwards laying between brown paper wet with glycerine, is a good plan."

POISON-CASE.

THE following description and sketch of a "poison-case" for the pharmacy was submitted to the late American Pharmaceutical Association meeting by Mr. Henry Biroth, of Chicago. We copy the drawing from the New York *Pharmaceutical Record*. The author first gave the obvious reasons for keeping poisons in a special safe. He does not aim to include in it all remedies potent enough to cause alarming



results when given in overdoses. To make it too general would destroy its practical value. He aims to isolate the specially dangerous substances from all others, and from each other, in such a manner that no one at all fit to be called a pharmacist can commit any mistake between them.

To further increase the efficiency of this safeguard, I recommend, says the author, that, whenever practicable, dilutions be made of such substances as, for instance, morphine, strychnine, corrosive sublimate, and arsenious acid. The dry triturations or dilutions which I employ in my own store, and which I have found to be exceedingly convenient, are uniformly prepared so that 8 grains represent 1 grain of the active ingredient. The liquid dilutions are solutions, of which 1 fluid drachm represents 1 grain of the active ingredient. Of course, these proportions can be changed according to individual prefcrence, making them decimal, if desired, or otherwise; but I regard it as essential that the strength of each dilution should be the same as that of any other of the same class, in order that there may be no error resulting from defective memory.

This poison-case is quite compact. In fact, I was surprised to find that a case 24 inches broad, 27 high, and 5 inches deep was amply sufficient. It thus occupies so little space that it becomes easy to find an appropriate place for it in the neighbourhood of the prescription counter.

It contains ten compartments, as follows:—

No. 1, labelled "Morphine."—This contains an original bottle of morphine (1 oz.) with the manufacturer's label undisturbed, and behind it may be placed several drachm-vials of morphine. These bottles are intended for use only when large quantities are called for.

No. 2, also labelled "Morphine."—This is to contain the dilutions of morphine, viz., in front a 6-oz. bottle of solution prepared as above mentioned, each fluid drachm to contain 1 grain of morphine sulphate, the diluent to consist of alcohol and water in the proportion of 1 to 7. The addition of alcohol preserves the solution perfectly. Next to it stands a 4-oz. bottle of trituration prepared from 1 drachm morphine sulphate and 7 drachms sugar. Behind these bottles are three shelves. One of them may be used for acetate, valerianate, hydrochlorate, and other salts of morphine; another for pills of morphine; and the third for any other or similar preparation.

No. 3, labelled "Opium."—To contain a 4-oz. bottle of powdered opium and a 6-oz. bottle of tincture of opium. Behind these are again three spaces, of which one may be used for denarcotised opium, &c., another for pills, and the third for whatever other opium preparations may be required.

No. 4, labelled "Cyanides."—In this compartment is to be kept an original bottle of cyanide of potassium, behind and in front two original 1-oz. vials of hydrocyanic acid, one opened and the other in stock.

No. 5, labelled "Corrosive Sublimate."—Intended to contain an 8-oz. bottle of corrosive sublimate and an 8-oz. bottle of solution prepared of the same strength and in the same manner as the morphine solution. Behind these are spaces for proto and biniodide of mercury, yellow sulphate, &c., and also for pills containing corrosive sublimate, the iodides, or other powerful mercury preparations.

No. 6, labelled "Arsenic."—This compartment has two doors. It is to contain a 2-oz. bottle of trituration prepared of 1 drachm arsenious acid and 7 drachms sugar, and also an 8-oz. bottle of arsenic kept in a pasteboard box in order to distinguish it from the bottle of trituration, since the contents of both bottles are white powder. This additional precaution is deemed highly desirable, although the sizes of the bottles are very different and the labels conspicuous and distinctive.

There is also in this compartment a round 8-oz. bottle of Fowler's solution, and an oval 8-oz. bottle of Donovan's solution; also a 4-oz. bottle of solution of chloride of arsenic, another 4-oz. bottle of solution of arseniate of sodium: these two 4-oz. vials are of different shape. Behind are spaces for a number of small arsenical preparations, such as arsenite of quinine, arsenite of sodium, red and yellow arsenic, &c., and for pills of arsenious acid.

No. 7, labelled "Strychnine."—This will hold a 2-oz. bottle of trituration prepared from 1 part strychnine sulphate and 7 parts sugar; and also a 4-oz. bottle containing a solution of the same strength as the morphine solution; the diluent in this case to be of 1 part alcohol and 3 parts water. Behind may be placed the small bottles containing the pure alkaloid and its acetate and sulphate, &c., and also granules containing strychnine.

Compartments 8, 9, and 10 are not labelled. They are intended for miscellaneous poisons as described below.

No. 8 is to contain a 2-oz. bottle of each of the tinctures of aconite, belladonna, and gelsemium, and behind these may be placed small vials of atropine, atropine sulphate, aconitine, apomorphine, &c.; also pills of these.

No. 9 contains 2-oz. bottles of the stronger acids, as hydrochloric, nitric, nitro-hydrochloric, and sulphuric acid, and also of pure carbolic acid for internal use. Behind may be kept small bottles of triturations of calomel and of tartar emetic, one in a dark bottle and the other in a white one, both prepared from 1 drachm of the chemical to 7 drachms of milk-sugar. If considered to be more practicable these two mixtures may deviate from the rule and be composed in the proportion of one to three. Milk-sugar is to be preferred in these preparations. There may also be kept in this compartment, behind the acids, small bottles containg 25-per-cent. solutions of the extracts of belladonna, hyoscyamus, and opium, prepared from 1 oz. extract to 1 oz. each of water, alcohol, and glycerine; these solutions keep perfectly, and are often very convenient.

No. 10 may contain 2-oz. bottles of the tincture of veratrum viride, wine of opium, and deodorised tincture of opium. Behind these may be placed such articles as digitaline, codeine, hyoscyamine, veratrine, and other alkaloids.

The top of the whole case may be utilised for narcotic solid extracts, or for larger stock-bottles of tinctures of aconite, opium, &c., or fluid extracts.

It will be seen that, as far as practicable, I have varied the sizes and styles of the bottles themselves to increase the chances of protection. The labels are all conspicuous and very full, giving in each case the exact strength of the several dilutions, &c. The fact that the smaller vials of poisons are placed on the little shelves behind the larger bottles, although seemingly inconvenient, is in itself a very effective safeguard, by reason of the necessity of removing the bottle standing in front before the other can be reached.

There are no locks and keys to this case, because I believe these to be wholly unnecessary; it is enough to know that there is nothing in the case but poisons. Moreover, I believe that when locks and keys are placed on the doors of poison-cases the doors are generally unlocked, or great inconvenience arises when the key is mislaid. The doors in this case are readily opened and closed, and fit snugly, so as to remain closed when pushed to. The only compartment which may require lock and key is case No. 1, containing the original bottle of morphine.

In this little case are thus contained all that is of an especially dangerous nature in the drug-store, and, as arranged, it will unquestionably prove the most effective means yet devised to guard against fatal mistakes in dispensing, giving protection to the public and to the dispensers alike.

In the discussion which followed there was some criticism of the solutions employed, but we shall limit ourselves to the remarks on the principle involved. Mr. Ebert explained the plan adopted by Mr. Diehl, which had struck him as being a good one. Mr. Diehl puts all the vials of poisons in a drawer with the original labels on them. The drawer is labelled "Poison" simply. When a dipenser wants a poison he has to search through that drawer, and the idea is that he is certain to exercise unusual caution. Mr. Ebert said the important thing was that dispensers should have enough sleep, and should always keep themselves in such a condition that the brain should be clear. Mr. Hallberg made the very important observation that the three fatal mistakes that had occurred in the United States during the past three years happened to men whose competence was not questioned, but all occurred in consequence of the morphia being used instead of quinine, both bottles standing near each other. Mr. Biroth stated that the case as it stood in his store cost $40 (8*l*.).

HONEY, PURE AND MANUFACTURED.

AT a conference of the Bee-keepers' Association, Mr. Otto Hehner, F.I.C., gave a lecture on the adulteration of honey, urging that the Sale of Food and Drugs' Act should be used to promote more general honesty in regard to the supply of this product. He did not know that there had been a single prosecution in respect of spurious honey, and this, he thinks, is due to the fact that the public taste is not yet educated to an appreciation of the flavour of fine natural honey. The public, he says, "seem to prefer honey derived nominally from fragrant Alpine herbs, but practically from potatoes and sulphuric acid, or from some mythical Californian bee-farms, to that collected from English hedgerows and meadows."

From an abstract of Mr. Hehner's lecture, published in the *Analyst*, we take the following details of his experience in reference to manufactured honey:—

"There are three classes of manufactured honey: first, honey made from ordinary sugar, and essentially consisting of cane-sugar syrup; second, that obtained by the action of an acid upon cane-sugar, and consisting, as does genuine honey, of water, dextro, and levoglucose; and third, the product of the action of acid upon starch, called corn syrup. I have never met with any samples of the first of these three classes, and I doubt whether any such article can nowadays be found, although in older works on adulteration their occurrence is asserted. The second kind is also very rare, but it exists; but the third, starch syrup, is the main substitute and adulterant used at the present time.

"The characteristics of these articles compared with those of pure, natural honey are as follows:—A solution of pure honey in water, when boiled with one of a salt of copper which has been rendered caustic by the addition of potash, deposits a precipitate of red suboxide of copper, 100 parts of honey thus yielding about 137 parts of precipitate. Neither by the addition of alcohol, nor of lead acetate, nor of barium chloride, should a solution of honey be rendered perceptibly turbid. Subjected to fermentation by the addition of yeast, practically the whole of the saccharine material should be decomposed, and transformed into alcohol and carbonic acid. And lastly, a 10-per-cent. solution of pure honey, when examined in a polariscope, should have no perceptible action upon polarised light. If anything, it may turn the polarised ray very slightly to the left.

"Cane-sugar syrup agrees in its chemical behaviour with real honey, inasmuch as it does not yield precipitates with alcohol, salts of lead, or barium, and is also completely fermentable. It differs essentially from it, inasmuch as it does not give with the alkaline copper solution alluded to a deposit of red suboxide at all, or only a much smaller proportion than that holding good with honey. Its 10-per-cent. solution turns the polarised ray of light powerfully to the right.

"Cane-sugar which has, by treatment with an acid—sulphuric or tartaric—been made into dextro and levoglucose, is practically identical with honey-sugar, and as such exhibits precisely the same characters as does genuine honey. Its origin, however, betrays itself by the traces of acid which always remain mixed with it, and which cause precipitates either with lead or barium solutions, or with both.

"Corn or starch syrup, lastly, differs in almost every respect from the genuine product. It throws down abundant precipitates with lead or barium solutions, often with alcohol; it does not ferment completely, but leaves about one-fifth or one-sixth of its weight as unfermentable, gummy residue, and examined by the polariscope, turns the ray of light powerfully to the right.

"These few simple tests readily enable us to distinguish these products from each other, and from honey. Examined with the microscope, they are all found to be devoid of pollen; and, in consequence, are without the delicate aroma, the bouquet, which is inseparable from the product of the flower and the bee.

"By far the most common of these kinds of adulteration is starch-sugar, and this for several reasons. The price of starch is lower than that of any other available carbohydrate, and this kind of sugar is, for other and more legitimate purposes, manufactured on a very large scale. Since all restrictions on the preparation of ale or other so-called malt beverages have been done away with, and the tax is levied only on the strength or gravity of the liquor before it is fermented, it is found to be more economical to convert starch of rice or maize into fermentable sugar by means of acid, than by the aid of malt diastaste, and the trade in brewing-sugar has correspondingly increased. But the main reason is the very close resemblance to genuine honey of syrups made from starch-sugar. They do not readily crystallise, and are devoid of the overpowering sweetness of cane-sugar. In America, especially, the production of starch-sugar has been developed to perfection, and even as a substitute and adulterant of cane-sugar the article is used to a large extent, although the very low price of cane-sugar must militate not a little against adulteration of any kind. As was to be expected, corn-syrup is actually most frequently found in honeys imported from America, although Switzerland is striving hard to carry off the 'honour' attached to the production of artificial honey.

"Of forty-two samples of honey obtained by purchase from retail dealers—partly by myself, partly by Mr. J. M. Hooker, of the Bee-keepers' Association—twenty-six were avowedly English, nine American, four Swiss, two French, and one Transylvanian. Twenty-four of the English samples were undoubtedly genuine, and two (which I have very good reason to believe of American origin, although vended as English) were adulterated with corn syrup. Of the nine American and Californian samples, seven were adulterated—namely, six with corn syrup, and one with inverted cane-sugar; whilst of the four Swiss samples not one was genuine. The two French and the Transylvanian samples were pure.

"The most satisfactory part of these results is the freedom of English honeys from adulteration. As far as my experience goes, there exists no regular English factory of spurious honey; only where the American element asserts itself corn syrup may be suspected. As to Swiss honey, I have seen it stated, in corroboration of my results, that every exporter—otherwise, manufacturer—of Swiss honey adds to the natural product a more or less considerable quantity of starch syrup, the alleged philanthropical object being to obey the desire of the public for clear and uncrystallisable honey, purchasers being credited with the belief that pure and genuine honey is always clear and fluid. In mitigation it is urged that

honey from Switzerland is not sold as 'genuine honey' but as 'Swiss honey'!

"I find that the price is no indication whatever of the genuineness of the article. Some of the 'Swiss table-honeys' cost, retail, 1*s.* 3*d.* per 1-lb. jar; English honey of perfect purity is to be met with at 5*d.* and 6*d.* per lb.

"Of course, perfectly pure and genuine American and Swiss honeys do exist. Bees all over the world appear to secrete similar honey, just as I have ascertained, as the result of an extended investigation into the nature and composition of wax, that that product is of perfectly uniform composition, no matter by what kind of bees or in what part of the world it may have been produced. But, seeing that the chances of obtaining pure honey are much greater in the case of English than in some of the foreign supplies which I have named, I cannot but think that the lovers of honey would do well to eschew the foreign product until a decided change for the better has taken place in the commercial morality of the vendors, and be content with that gathered from British fields and pastures."

REFLECTIONS CONSOLATORY.

(*A Paper read before the Pennsylvanian Pharmaceutical Association, by* Mr. WILLIAM B. THOMPSON.)

Druggist to his Henchman.

WHAT ho!—my stanneh assistant—there's work for thee anon,
So gird thee with thy apron true—and put thy stout sleeves on.
Prepare to pound—drugs must be ground—the brazen mortar ring,
And the pestle roll in the marble bowl—the scales will have to swing
When our worthy patrons eat five times as much as is meet—
When roast beef they eram, or turkey, and ham—and sausages tuck in—
Or pudding of plum, till they become filled nearly to the chin—
Or tart, or jam, or blanc-mange they eram, and their skins with jelly stuff,
And custard, and eream, and yet they deem, these not *quantum suff.*—
And oh! what vast capacity they reeklessly do evince
And still can find, within, some room for pie of mince—
Then dessert will succeed, each delicacy new appetite awake,
And they gobble up apples, oranges, nuts, almonds, raisins, and cake,
Besides a deal of candied peel, dates, French plums, and figs—
Oh, what a business must accrue to us through the folly of these pigs!
They gorge a mass of rich sweet trash, at midnight seek their beds—
The sun will smile next morn—on bile—and numberless aching heads.
There will be pills for thee to grind, and draughts for thee to pour,
And powders thou wilt have to weigh—provided he therefor—
Mix plenty of doses of black—roll many a pill of blue—
And also Compound Colocynth, and Compound Aloes, too—
And the powder grey in doses weigh—likewise the Pulv. Jalap,
And the Pulv. Rhei—they'll be wanted for many a foolish chap—
To remedy too much mince pie put up Vin. Antim. Tart.,
And Ipecacuan—which will like benefit impart—
Of Senna good provision make—and Scammony as well—
Divide in doses manifold a lot of Calomel—
Cheeks will grow pale on beef and ale, from midnight's dance and romp,
Quinine have at hand therefore—and Mistura Ferri Comp.—
So you see, my stanneh assistant, there's work for thee anon,
So gird thee with thy apron true—and put thy stout sleeves on.
Prepare to pound—drugs must be ground—the brazen mortar ring,
And the pestle roll in the marble bowl—and the scales will have to swing.

HAIR TRITURATION.—The well-known Professor Jaeger, "discoverer of the soul" and advocate of the wearing of woollen clothing exclusively, has "discovered" that the homœopathic attenuation of the human hair is a sovereign remedy for many ills that flesh is heir to, and has applied for a patent, in Austria, upon his "Haarduftkügelchen" (or "Hair-odor-granules"). To the human female hair he assigns extraordinary powers. For instance, if it be administered in the form of granules, with the food, it will promote appetite and invigorate the system, &c. To the objection made by the press, that the administration of such a remedy appears nauseous, the author replies:—"The idea of disgust is removed by the high dilution. A whole hair in a plate of soup may be considered repulsive, but nobody will object to drink from the Lake of Constance if he knows that *one* hair has fallen into it; and this is about the dilution attained in the granules."

THE GERMAN SOCIETY OF CHEMICAL INDUSTRY.

THE Society for the Protection of the Interests of German Chemical Industries held its meeting at Dresden on September 17. A hundred and three societies were represented. Director Holtz (Berlin) presided. From the annual report, read by the General Secretary Wenzel, we take some interesting statistics. The Society has 277 ordinary and honorary members, representing 200 factories, with a nominal capital of 240,000,000m. (17,000,000*l.*), and about 32,000 employés. The average rate of wages was 16·86m. per week: the average in the heavy chemical, pharmaceutical, and photographic industries was 18·09m.; in colour manufactories, 16·97m.; in match and explosive factories, where the largest proportion of females is employed, 10·01m.; artificial manures, 16·95m.; in varnish, lacquer, and ethereal oil industries, 13·26m. Wages amounting to 26,800,000m. were paid [annually?] at the works connected with the Society. The output in the chemical industries shows a considerable increase compared with the previous year. It shows itself in a great increase in the exports, and in the number of factories and their capital, and an addition of 9·2 per cent. to the number of hands employed. The earning-power has not increased with equal steps with the output. The increasing competition has compelled a general reduction in prices, and in many branches has led directly to selling below cost. The average dividend in 46 companies has fallen from 12·37 per cent. to 10·29 per cent.

Foreign and Colonial.

MUSTARD-PENCILS (*Crayons Sinapismes*) have followed the menthol-pencils in Germany. They are recommended to produce counter irritation by rubbing behind the ear in face-ache, on the temples in headache, and on any affected part for rheumatism.

THE GERMAN PHARMACISTS who met at Magdeburg on September 20, 1884, on the occasion of the session of the Natural Science Association, resolved to form a pharmaceutical section of the Association, and Dr. Tschirch, of Berlin, was requested to draw up a scheme of organisation and submit it at the next year's session at Strasburg.

THE EPIDEMIC.—We are informed that in Vermont lithographic prescriptions for cocktails are used by drinking-men. They read as follows:—Spir. frumenti, 2 fl. oz.; ext. Angos., ½ drachm; syr. simp., ½ fl. oz. They are put up by druggists, who charge from 20c. to 50c. a prescription. Much sickness is said to prevail.—*Weekly Drug News.*

AN ANALYTICAL CERTIFICATE.—Professor Woodville Latham, of the University of West Virginia, has been acquitted by the Board of Regents of charges of profanity. During the investigation witnesses testified that the Professor once remarked in class: "Between me and my God there is not oxygen nor hydrogen there."—*Weekly Drug News.*

DR. ALFRED J. NOCKIN, a pharmacist of New York, was recently shot and killed by a former clerk, Theodore Bung, on a Sunday afternoon. Bung had been employed in a number of New York pharmacies, and bore a good reputation. No reason is given for the act. Dr. Nockin was fifty years old, and leaves a wife and family. He was born in Germany, and went to America thirty years ago.

SALICYLATED POMADE FOR PERSPIRATION OF THE FEET.—The Bavarian Minister of War has just issued an order that the salicylated powder hitherto used by the troops on march as a remedy against perspiration of the feet shall be replaced by a pomade composed of 2 parts of salicylic acid in 100 parts of mutton fat. Each soldier is provided with 20 grammes of the pomade, which is to be applied daily. Daily washing is also ordered.

WHIPPING UP AN EXPORT TRADE.—An *Institut Commercial* had been established in Paris with the express object of training youths for export business. Boys of thirteen years of age and upwards are received, and a course of three years' instruction is given, the purpose being kept in view of encouraging a love of travel and a conviction of the superiority of French manufactures over those of all other countries.

WHAT THEY DO WITH THE PROFITS.—One of the largest declarations of wearing apparel recently made at the Custom House was that of Mrs. Ayer, who arrived last week on the *Gallia*. Mrs. Ayer is the widow of Dr. Ayer, of Lowell, the well-known patent medicine man. She had sixty packages containing a great variety of rich and costly clothing. Among the articles declared by Mrs. Ayer were two fans valued at $500 each, and three dresses valued at $1,200 each. —*Oil, Paint, and Drug Reporter* (*N.Y.*).

MEDICINAL SOAPS AND THE UNITED STATES TARIFF.—The New York Custom House claims 50 per cent. *ad valorem* duty on medicated soaps, on the ground that they come under the clause which provides that all cosmetics, pills, powders, troches, syrups, bitters, tonics, plasters, liniments, essences, or preparations or compositions recommended to the public as proprietary articles, or prepared according to some private formula, as remedies or specifics for any disease or affection whatever, including all toilet preparations used as applications to the hair, mouth, teeth, or skin, shall be liable to that rate of duty. As ordinary soaps these would be liable to a 20-per-cent. duty; as toilet or fancy soaps, to a duty of 15c. per lb. An importer has submitted the question to Washington, but we have not yet seen the publication of the decision.

GERMAN DEGREES.—To the degree of Dr. conferred by German universities, more especially to the Ph.D., or Doctor of Philosophy, there has in this country always attached a certain suspicion from the unfortunate fact that some of these institutions granted the honour to anyone who cared to give a few pounds for it. The universities of Germany have at length united to wipe away this reproach. It has been agreed by all the faculties in the Empire that neither in law nor medicine, neither in philosophy nor divinity, shall any doctor's degree be hereafter conferred upon a candidate *in absentiâ*; nor is the inaugural dissertation, written in German or Latin, in any case to be dispensed with. The qualifications for the degrees in all the German universities are now, in fact, practically uniform. In addition to passing the "maturity" examination at a gymnasium, candidates are required to attend a minimum number of classes at a university during at least three sessions.—*Med. Press.*

REPETITION OF PRESCRIPTIONS IN FRANCE.—It will be remembered that last year a Paris pharmacien was fined and imprisoned for having repeatedly dispensed for a lady a prescription for morphia draughts. The Society of Legal Medicine have taken the question into consideration, and have published a report. They do not question the legal accuracy of the judgment, but they recognise that, in fact, it would be unreasonable to require patients to have a new consultation with the physician every time they require a repetition of their medicine. It has been suggested that the prescriber should endorse his prescription "may be repeated . . . . times," but this plan leaves the patient quite at the mercy of the prescriber. Then country people when in Paris often consult an eminent physician, and carry away his prescription. Are they to be prevented obtaining a fresh supply of a medicine which suits them? The law respecting the repetition of prescriptions is vague, except in regard to certain poisonous substances, and the Society think it best to leave the text of the law as it is. But they recommend, as the conclusion of their report, that prescriptions for hypodermic solutions should not be renewed without special authorisation; that prescriptions for all such dangerous medicines as may occasion accidents, and of which, according to law, the quantities ordered are to be written out in words as well as figures, might generally bear an indication of the number of times it might be repeated without a fresh *visa*; and that, in order to carry out this plan successfully, pharmaciens should be expected to re-stamp such prescriptions on every occasion of dispensing them.

Obituary.

BARNETT.—On September 28, at Stanley Cottage, Buxton, Mr. Alexander Barnett, pharmaceutical chemist. Aged 41.

CLARKE.—On September 10, Mr. Joseph Clarke, chemist and druggist, Crumpsall, Cheetham. Aged 47.

COOPER.—On September 11, at Wimbledon, Mr. Benjamin Cooper, chemist and druggist, Docking, Norfolk. Aged 56.

EVANS.—On September 8, Mr. Frederick William Evans, chemist and druggist, Treherbert, Glamorganshire. Aged 36.

GÉRAUT.—On September 28, Elisa Margueritte Hahn, wife of Eugene Géraut, of Farringdon Road. Aged 52.

GOSNELL.—On September 14, Mr. Charles Gosnell, of the firm of John Gosnell & Co., fancy-soap makers, &c., 93 Upper Thames Street, E.C. The deceased was in his sixty-ninth year, and died at the residence of his son, Bridge House, Feltham.

KNOTT.—On August 31, at 79 Pershore Road, Birmingham, Mr. Henry Knott. Aged 70. For nearly fifty years the much-respected representative of Messrs. William Edwards & Son, of 157 Queen Victoria Street, London.

MACHIN.—On September 11, Mr. Frederick John Machin, pharmaceutical chemist, Hayton Road, Liverpool. Aged 42.

SANDERS.—On September 14, Mr. Thomas Sanders, chemist and druggist, Abney Park Terrace, Stoke Newington, N. Aged 36.

WHARTON.—On September 12, Mr. Frederick Wharton, chemist and druggist, Lees Road, Oldham. Aged 74.

WILLIAMS.—On September 11, Mr. Charles James Williams, chemist and druggist, St. John's, Warwick. Aged 51.

MARRIAGES.

CLEMES—DICKERSON.—On September 24, at St. Peter's, Plymouth, Mr. Frederick W. Clemes, of Plymouth, to Emily, second daughter of the late Mr. Henry Dickerson, chemist, of Devonport and Stoke.

KENT—BELL.—On September 24, at the Parish Church, Doncaster, by the Rev. Canon Wright, vicar, Mr. Benjamin John Kent, chemist, of Devonport, eldest son of the late Mr. Benjamin Kent, of Boston, Lincolnshire, to Eliza Wightman (Lily), daughter of Mr. Edward Bell, Regent Square, Doncaster.

MANTELL—WILSON.—On October 8, at Lime Street Chapel, Preston, Charles, only son of Mr. Charles Mantell, chemist, Cregoe Street, Birmingham, to Annie Eliza, only daughter of Mr. W. Wilson, veterinary surgeon, Preston.

SMITH—SILK.—On September 23, at Whitacre Church, Mr. F. A. Smith, chemist, Darlaston, to Miss Silk, eldest sister of Mr. J. Silk, chemist, Worcester.

TRUSTED—ATKINS.—On September 16, at St. Barnabas's, Birmingham, the Rev. Wilson Trusted, curate of Westborne Tarrant, to Margaret, only daughter of Mr. W. S. Atkins, chemist, Broad Street, Birmingham.

TESTING BEESWAX.—When the wax is chewed it should have no disagreeable taste, and must not stick to the teeth. In an adulterated wax the nature of the foreign material can generally be detected by the taste; the addition of fat can generally be readily detected. If it sticks to the teeth the presence of rosin may be assumed. A simple method for detecting the presence of fat in wax consists in melting it, and placing a drop on a piece of woollen cloth. After it is perfectly cold and solidified, a few drops of 33 per cent. alcohol are poured on, and the cloth is rubbed between the hands. The wax will be converted into dust, and will easily separate from the cloth if it contains no fat, and will leave no stain; when it contains fat it will leave grease spots. In examining wax candles, they should be broken to see whether the interior is of the same material as the surface, because adulterations of this kind occur quite frequently.—*Mon. prod. chim.*

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HAY'S SOLUBLE ESSENCE OF LEMON. See page 66.

EDITORIAL NOTES.

PHARMACEUTICAL LEGISLATION.

"THE Council," we are told, "again went into committee, and discussed at some length the prospects of pharmaceutical legislation, but no resolution was moved." We are glad that the subject is on hand, but we do not think the constituents of the Pharmaceutical Council can well be satisfied with the manner in which it is being dealt with. If the Council discuss this question in this dilatory fashion, what right have they to be surprised if Parliament and the Privy Council treat it as a subject which can wait? We have no extravagant hopes of any sudden and brilliant benefits which can result from Acts of Parliament, but we are among those who believe that the Pharmacy Act of 1868 has "elevated the status," and promoted the interests of the pharmacists of this country. We know there are chemists who say that the effect of the Act has been useless, or worse than useless. This point we shall not discuss at present; what we wish to have admitted is, that our view of the Act is that of the members of the Pharmaceutical Council themselves. We confidently assert that they to a man are prepared to maintain the value of the Act. Further, they would recognise that the decision of the House of Lords on July 22, 1880, in the case of the Pharmaceutical Society *v.* the London and Provincial Supply Association (Limited), so far crippled their Act as to make it essential for them to apply to Parliament for a correction of its language.

Now, will any one declare that they have gone about this work like men in earnest? They are not elected for mere academic discussions, and there is some serious business on hand. But they come together month after month, twenty-one of them, from various parts of the country, set this subject at the end of their programme, talk over it *in camerâ* for perhaps an hour or two, one and another perhaps drop away to catch a train or keep another appointment, and their further discussion is postponed indefinitely.

There are two things the Council ought to do in this matter. First, discuss the matter openly. There need be no secret whatever about what they want, nor how they aim to attain their purpose. Secondly, they ought to be summoned to London with the distinct understanding that they are going to work at this problem until they have solved it, even if they have to sit beyond dinner-time. The time is ripe for action; Parliament and the Government have recognised it. And if pharmacists are themselves to have an influential voice in the settlement of the question, they must show a definite policy which they are prepared to defend.

Setting aside altogether the aborted Bill, which was elaborated with such great pains and rejected with so little ceremony, the course seems clear enough. First it is to be hoped the Council will have learned that it is important to separate their internal concerns, the curriculum, and such like arrangements, from the public interests of pharmacy. Next they must resist the temptation of asking for an extent of protection, which is not given to any profession. Their truest interest is to meet the public demand for some greater guarantee of safety in the handling of dangerous medicines, drugs, and chemicals. A very short Act would accomplish all that can reasonably be expected by pharmacists on the one hand and by the public on the other hand. A first clause should define the meaning of the word "person" in the 1868 Act as applying to corporations; a second clause should repeal the exemption granted to the sale of patent medicines by the former Act; and a third clause should somewhat extend the schedule of poisons, at least to make it include carbolic acid, unless the Privy Council would consent to such extension without an Act.

A simple Bill of that kind would pass, and it would accomplish a great deal. The difficulty would lie with patent medicines, but that difficulty would smooth itself. Dealers would say, as they said before, "How can I tell what is inside that sealed packet?" The answer is that no one can defend the practice of selling under a harmless name what may be a dangerous poison. It might be permissible to devise a special label for patent medicines containing poisonous drugs, so as to ensure the dose not being exceeded, without ruining the article itself. To attach a bare poison label to a box of cough lozenges has an element of absurdity as well as of danger in it. How best to meet this difficulty might well form the basis of a discussion between representative pharmacists and the Patent Medicine Association, and we do not think the members of the latter body would be averse to such a conference. But that a certain control over such remedies should be granted and enforced is a proposition which we think cannot be denied.

THE COMMA-SHAPED BACILLUS.

THE present position of the medical discussion in reference to the origin of cholera is not very hopeful to the ordinary sanitarian. It had been ascertained long ago that the disease flourishes in the midst of filth and foul air, and that it cannot get a foothold where these are absent. The recent European invasion has accentuated this fact, but, notwithstanding all the genius and courage and scientific resources which have been brought to bear on the investigation, it cannot be said any well-attested facts have been definitely added to our information. Dr. Koch, who is an investigator whose whole previous record entitles his opinion as well as his observations to the utmost respect, has, it is true, declared with much confidence that he has discovered the cholera bacillus. He describes it as a comma-shaped bacillus, found in the alvine discharges of cholera patients, and after death in the intestines. He has not found the same bacilli under other circumstances. He has cultivated these bacilli, but he has not been able to induce a choleraic condition in any other animals thereby; but he reasons that the bacillus cannot flourish except under certain peculiar conditions, the chief of which he believes to be the absence of the natural acids from the stomach. That is Dr. Koch's theory, and it seems, on the premisses, a very reasonable and a very probable one. But it cannot be said to be proven, not even to anything like the extent that the same investigator established his theory of the microbe of phthisis.

By far the most serious opponent of Dr. Koch's theory is Dr. Timothy Lewis, of Netley, who for more than a dozen years has been carrying on investigations in India, under the auspices of the British Government, with a view of discovering, if possible, the specific bacterium of cholera. Both of these investigators, it must be admitted, have worked with a bias. Dr. Koch, in the flush of the interest with which his phthisis-germ theory was received, went to Egypt and to India intent on finding a cholera bacillus. His mission would have been to some extent a failure if he had not discovered one. Dr. Lewis, on the other hand, would naturally be glad to prove that the eminent German had not solved in a few weeks the mystery which had baffled himself for many years. But then it must also be remembered that Dr. Lewis had in all those years just the same bias the other way.

Dr. Lewis points out that the bacilli which Dr. Koch first observed in the mucous membrane of cholera victims in Egypt were described as similar to the bacilli found in glanders. These are straight, and no mention is made of the comma-shaped bacilli until the report of the German Commission in India was published in February, 1884. This last summer Dr. Lewis has been to Marseilles, where he was afforded abundant opportunities of renewing acquaintance with the disease he knew so well. He found the comma-shaped bacillus, as Dr. Koch had done. He was shown one specimen of choleraic discharge, in which the comma-shaped bacillus prevailed, almost to the exclusion of all other bacilli, but this condition he believes to be very rare, and he saw other cases where other bacilli generally predominated, so that so far he regards Dr. Koch's selection of this one as the *materies morbi* of cholera as entirely arbitrary.

But his most conclusive argument against the theory is contained in the assertion that similar bacilli are to be found in the saliva of perfectly healthy persons. Dr. Koch says these are never found except in cases of cholera. Dr. Lewis says:—"Had Dr. Koch and his colleagues submitted the secretions of the mouth and fauces—the very commencement of the alimentary canal—to a careful microscopic examination of the same kind as that to which they have submitted the alvine discharges, I feel persuaded that such a sentence as the foregoing would not have been written, seeing that comma-like bacilli, identical in size, form, and in their reaction with aniline dyes, with those found in choleraic dejecta, are ordinarily present in the mouths of perfectly healthy persons."

As Dr. Lewis says, there is no difficulty in putting this statement to the test. There are plenty of competent observers who can follow the experiments, and they will be followed; but for the present it cannot be considered that Dr. Koch has fully established his theory.

THE MANUFACTURE OF SANTONINE IN TURKESTAN.

A YEAR ago we published some details concerning the proposed manufacture of santonine on the spot where the santonica is grown. The object aimed at was to save the heavy cost of carriage of worthless material to Europe or America if the santonine be manufactured away from the spot where the santonica is grown. Hitherto the herb has been collected on the steppes of the Khirgiz in the north of Turkestan, and conveyed thence to the Nijni-Novgorod fair, and the cost of the carriage alone was calculated at about half the commercial value of the santonine itself. From information which has been furnished to us from Germany, we understand that the enterprise which we intimated had been attempted has been actually carried out, and an advertisement which now appears in our pages gives conclusive evidence that the chemical factory in Central Asia now competes with English and German makers of this chemical.

The difficulties of transporting the necessary machinery through the Sin Darja desert on camels were very considerable, and the voyage occupied altogether about ten months, but at last everything reached Tschimkent safely.

The chief engineer and a number of German fitters have been in Turkestan since April, and the buildings having been erected last year, the mounting and fitting of the machinery could be commenced as soon as it arrived. According to recent telegrams the manufacture of santonine would be commenced on October 1 last.

The factory is the property of Messrs. Iwanoff and Szawinkoff, enterprising Russian merchants in Turkestan, who, besides this factory, own a brewery, a spirit distillery, a bakery, mills, &c., in these far-advanced Russian outposts. The Russian Government takes a great interest in these works, and gives them every possible protection.

The direction of the santonine factory is entrusted to a German engineer, Mr. Knapp, and a German chemist, Mr. Plaff, both of whom have been specially instructed in Mr. Joh. Diedr. Bieber's factory at Hamburg, under whose general direction the Tschimkent works were built and fitted.

The long voyage through the desert, taking for heavy transports at least five to six months, and even with the quickest despatch on express camels two months, will not permit this santonine to come in the market before the beginning of 1885, but from that time regular supplies are expected. The factory is fitted to supply the full demand of the world.

The market for santonica is still under the pressure of the large crop of 1881, brought on the market in 1882 and 1883, which exceeded the demand to an immense extent.

This year's Nijni-Novgorod fair showed only a very small quantity of santonica, and, according to authentic reports from Orenburg, the supply there and on the way from Turkestan does not exceed 13,000 poods—a quantity which is considerably less than is required for the United States market alone, where the import of santonine is nearly prohibited by a duty of more than double the value of the santonine.

POSTAL REFORM.

THE *Chamber of Commerce Journal*, in an article on "Postal Reform," proves that this country no longer leads the van in the matter of postal facilities. The British Post-office has gradually developed into a revenue-raising machine, and the annual diversion of three millions sterling from departmental to budget uses is really to that extent an indirect tax on trade. That three-fourths, probably nine-tenths, of the profit of the Post-office is derived from trading correspondence will readily be perceived when the relative cost of delivering a million letters in a city and a hundred in the country is considered. The journal we have alluded to gives the following summary of the superiority of foreign over British postal facilities:—

"There are now six European Governments, one American, and one Asiatic Government which carry letters at prices as low as three-tenths to a half-penny each. Germany, Denmark, Roumania, Switzerland, Austria-Hungary, Sweden, Canada, and Japan transmit local letters at prices within the above-stated rates, the weight allowed varying from ½ oz. to 9 oz. Abroad, letters are forwarded to new or altered addresses by the postal authorities free of charge. Here, a fresh penny has to be paid for each alteration. On the Continent, again, the *poste-restante* arrangements, as most travellers know, are far more complete than those which our administration purposely limits in every way. Post-cards and newspaper-wrappers are sold abroad at the exact price of the stamp; in this country an extra charge is made for the material supplied. We are aware that, as regards the latter items, complaints have emanated from the trade as to unfair competition between the Post-office and retailers. But as far as the general public is concerned, the fact remains that in France, Germany, or Belgium, two post-cards can be purchased for a penny, whilst in this country they cost three half-pence.

"The charges of Continental offices for the transmission of printed matter are strikingly lower than our own. We, it is well known, have no stamp under the half-penny. In Spain forty circulars can be posted for a penny, and in most other European States, and also in Japan, ten, or five at least. Newspapers, out of England, are also items of cheap transmission, the rates varying from one-tenth to one-fifth of a penny. In Germany, Belgium, and Switzerland, newspapers can be subscribed to through the Post-office, and a reduction on the postage is then allowed, whilst in some cases the publisher's discount is shared with the purchaser. Nor, as far as we are aware, do foreign offices make the antiquated distinction, in which our authorities persist, between daily, weekly, or monthly publications. Size and weight, we venture to think, and not the period of publication, should be the basis of charge. We trust that the repeated representations made to the authorities at St. Martin's-le-Grand on this point will soon be listened to, and that Mr. Fawcett's personal attention, so satisfactorily given to telephone reform, will now be directed to the assimilation of inland newspaper rates.

"Our telegraph charges, admittedly the highest extant, are, it is understood, to be reduced some day. But the necessity for an approach to the charges prevalent elsewhere appears to be so little felt that the loss of some 180,000*l.* in connection with the Parcels Post, on a budget showing some three millions sterling of profit, is seriously submitted to the country as a reason for adjourning the introduction of the reduced telegraph rates. The Chambers of Commerce throughout the country have been almost unanimous in expressing their regret at this adjournment. When the improved service is introduced it is hoped that it will comprise telegraphic money-order arrangements such as have existed for years abroad. More complete provisions for the transmission of messages after 8 P.M. would also be advisable. At present it is almost impossible, whatever may be the gravity of the circumstances, to forward a message during the night, or on Sunday."

FILTRATION OF WATER.

M. PASTEUR, in his laboratory, obtains water perfectly free from any germs of microbes by passing it through a tube of porous biscuit porcelain. Through a single tube, about 8 inches long by 1 inch in diameter, with a pressure of two atmospheres, M. Pasteur obtains a supply of about 20 litres a day. This, says Mr. Chamberlan, in a report submitted to the Academy of Sciences, would be sufficient for most households, and a battery of tubes might easily be arranged for large institutions, such as hospitals, schools, or barracks. To adapt such a porcelain filter to the kind of apparatus we have ordinarily in use would be difficult, on account of the pressure necessary to force the water through; but a skilful mechanic might surely adapt it to a pipe from a cistern so that the necessary pressure might be assured, as well as absolute purity in the water drawn off. The porcelain filter can be easily purified by soaking it in boiling water or exposing it to a fire, to destroy the organic matter deposited.

MR. THISELTON DYER ON PHARMACY.

WE sincerely sympathise with the eminent gentlemen who are called upon as each autumn recurs to pronounce the inaugural addresses to the students at the various scientific schools where these are in vogue. And we admit that it is most unfair to criticise or judge any public man by his utterances on such an occasion. The speaker is in an entirely false position; at any rate, in the particular instance just now before us, he was. Mr. Thiselton Dyer has acquired a very honourable position in the scientific world at a comparatively early age, and as his special subject of study is one of the bases of pharmaceutical knowledge, it was appropriate that he should be invited to address the students at Bloomsbury Square. Now, if Mr. Thiselton Dyer had simply "addressed the students," he would have had to utter a good deal which would have been platitudinarian to the *blasés* gentlemen immediately surrounding him; but which might have been very inspiriting to the young men for whose benefit the oration is supposed to be composed. For the older men the recitation of "Let us then be up and doing," and quotations of that character added to urgent appeals to the students to resolve on honest, unflinching work, are about worn out. They have heard the same sort of thing so often, and they scarcely realise how it sounds to a fresh young soul who enters the arena for the first time. So the orator has to choose whether he will aim at usefulness or smartness, whether he will try to help on the young and ardent by homely and old-fashioned advice, or whether he will seek to satisfy rather those with whom he comes more immediately into contact by a more brilliant dissertation, which shall serve better to display his own genius.

Mr. Thiselton Dyer assured his audience that he had taken no counsel with any one as to what he should say that night. But he seemed to have skilfully enough read the desires of the Pharmaceutical Council, and he may be assured that he provided exactly the pabulum which best pleases that body. To declare that the Society is entitled to very great respect and admiration, that it always goes right, that its diploma assures courtesy and intelligence, that the medical profession ought to abandon pharmacy entirely to this Society, that pharmacists ought to be appointed to compile the Pharmacopœia, that their school has turned out so many men of high eminence, that their journal is a literary model, and that they generally ought to be in federal relationship with the University of London, and be paid by the nation to prosecute pharmaceutical research—these are the points in an oration which has been officially declared to be "valuable as showing the estimation in which the Pharmaceutical Society and its operations are held by an eminent public man."

Is Mr. Thiselton Dyer's "address to students" to be taken seriously? We confess we find it difficult to do so. Students are not to cram; but they are to avoid the mistake "of paying too much attention to some things and neglecting others." That is the essence of the crammer's advice. They cannot look back on any cramming they may have done without some loss of self-respect, unless, it would appear, the subject crammed was one required by the examiners, but not approved of by the student. In Mr. Dyer's own case the Thirty-nine Articles and Old Testament history were the inferior subjects which he seems proud of having "crammed."

And does Mr. Dyer seriously hope to see the day when materia medica and pharmacy shall be "eliminated from medical studies"? Does he think that the doctor who is now satirised for using drugs of which he knows little would be better if he knew nothing of them?

The latter part of Mr. Dyer's address is interesting. There is very much good work to be done in settling the pharmacy of drugs; but we imagine it will stand over for a long time if it has to wait till Her Majesty's Government think fit to endow such a work, which we understand to be the object advocated. Besides, it hardly appears from Mr. Dyer's argument that the ultimate purpose would be gained by this means. He is "anxious to see our list of first-class drugs, such as quinine and ipecacuanha, very much increased." That is what many people would like to see, and all history is in agreement with Mr. Dyer that the only probable way of finding these additional drugs is by coaxing the knowledge from savage or partially-civilised races. No doubt the proposed pharmaceutical laboratory can be well employed in analysing and classifying these new remedies when we get them; but for the first, and, as far as we can see, the most essential step in the process of thus benefiting the world, we are to depend, not on Government gardens or Government gold, not even on the Pharmaceutical Society of Great Britain, but entirely on the uncultured inhabitants of the African plains, the South Sea Islands, the steppes of Asia, or "the inaccessible ranges of the Andes," exploited, perhaps, by the representative of an American firm, or a camper among cannibals.

RUFUS PORTER.

A CURIOUS and very typical nineteenth century character died at New Haven, Connecticut, about a month ago. This was Rufus Porter, the founder of the *Scientific American*, one of the most popular and useful of all the technical journals published. That paper gives a sketch of Rufus Porter's career. He dates from 1792, and was, therefore, in his 93rd year when he died. He had two or three little scraps of schooling, but finished his education at the age of twelve, by which time he seems to have been a more or less accomplished mechanician, musician, artist, and poet. He filled up his time in constructing and inventing and fiddling till he was fifteen, when he was apprenticed to a shoemaker. He tramped 106 miles, from Portland to West Boxford, to take up this profession, but soon abandoned it, and got his living for a time as a musician. At eighteen he took to sign-painting. The war with Great Britain broke out in 1812, and he painted gun-boats; then he painted sleighs; wrote a book on the art of drumming; went into actual military service; taught school; constructed a grist-mill; and then invented a sort of camera obscura, which enabled him to take accurate portraits.

He was now between twenty and thirty years of age, and

from then on for some years he alternately tramped about the country with his portrait machine on a light handcart, and abandoned it to carry out any new idea which flashed into his never-resting brain.

Sometimes he wrote a book; then turned to painting; then edited for a time; generally doing well, but always abandoning every scheme when he was getting on with it, because some new idea had struck him. Notwithstanding the activity of his brain, he had in a high degree the gift of contentment. He was satisfied if he had liberty to follow up any scheme which occurred to him.

It was in 1845 that he established the *Scientific American*, and he worked it for six months. Then he sold it to its present owners, and went off on other tracks. Always moving, always inventing, always happy.

The moment a new thing occurred to him he made a drawing and description, and sold the whole or a share for a small sum; and then worked out some other idea, to be sold in the same manner. The mere catalogue of his inventions would be tedious. Among them were a flying-ship, an air-blower, punching-press, trip-hammer, pocket-lamp, pocket-chair, fog-whistle, wire-cutter, engine-lathe, clothes-drier, grain-weigher, camera obscura, spring pistol, engine cut-off, balanced valve, revolvidal boat, rotary plough, reaction wind-wheel, portable house, paint-mill, water-lifter, odometer, thermo engine, rotary engine, and scores of other inventions.

Mr. Porter's long and active life is another proof that it is worry, not work, which kills.

At the London Hospital the session was opened by a conversazione held in a tent in the spacious grounds behind the hospital. Prizes to nurses and medical students were distributed by the Lord Mayor and Lady Mayoress, and speeches were made by the former, by Sir Andrew Clark, and Mr. Jonathan Hutchinson, and by Mr. Hodge on behalf of the students. A special vote of thanks was passed to Mr. Munro Scott, the warden, for his trouble in getting up the conversazione. A novel and interesting spectacle followed the speeches. The curtains at one end of the pavilion were drawn aside, and the grounds were made to represent a battle-field by illuminating them with a red light. The bugles sounded the signal to "cease firing," and then from a Red Cross tent a number of the volunteer hospital corps emerged to all parts of the grounds, bringing in the wounded on litters, the latter being also personated by volunteers. The opportunity was afforded for testing and examining all kinds of ambulance apparatus. The corps consists of medical students from various hospitals, and was under the command of Sir Guyer Hunter, K.C.M.G.

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Mr. John Brinton, M.P., has written to the *Times* to sound an alarm in reference to the proposed Inventions Exhibition of next year. He quotes an opinion which has been published by Messrs. Henry Milward & Sons, of Redditch, needle-makers, who say they must exhibit because they cannot afford to go behind their brother manufacturers; but if so they will have to show machinery in practical operation which has only been known hitherto by patent specifications, and thus "show their hand" to their competitors all over the world, who in the opinion of many people are already undermining the industrial supremacy of this country. Mr. Brinton says: "Many are now inclined to ask whether we are prepared to work in a glass hive for the benefit of the world at large, and whether this kind of exhibition is little else than a parade of our manufacturing enterprise and experience before those who will be only too ready to profit by it." The risk suggested applies to every kind of manufacture, but it appears to us to be one which every manufacturer can control for himself.

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On the subject of railway rates, a correspondent of the *Times* says he received a box, weighing under 20 lbs., in London, from Bantry, Cork, per London and North-Western Railway. The carriage cost 4*s*. 1*d*. Had it been divided into three parcels it would have come for 3*s*., the railway company receiving about 2*s*. for their share of the carriage. This consideration may be occasionally useful.

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The anti-vaccinators may or may not have the best of the argument, but the *Lancet* evidently thinks any reply to their assertions will be good enough. Miss Terry, the actress, was ill just before she went to America, and the *Lancet*, announcing her recovery, added, "It may be well to explain that her illness was not due to vaccination, as was popularly supposed. She had been successfully vaccinated on the *left* arm by Mr. George Stoker ten days previously to the appearance of a whitlow on the right thumb. In spite of this, and the warnings of Dr. Fenton Jones, who attended her in this illness, she persisted in going through the fencing scene in 'Twelfth Night.' The inflammation, however, crept up into the forearm, all the flexor tendons becoming very rapidly involved. The thumb was twice lanced, and deep suppuration for some time threatened about the wrist-joint." The testimony would have been satisfactory if it could have been stated that the whitlow and the inflammation had preceded instead of followed the vaccination; but we fail to see what is proved by the distinction between the left arm and the right thumb. Does the *Lancet* think the human body is divided into distinct segments by a brick wall or an iron plate?

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Why should not women be pharmacists? has been gravely queried at a meeting of Dutch pharmaciens. Ladies can study, pass examinations, mix physic, and take the money as well as a man. It has often seemed a difficult question to decide what labour we shall give our female population, and it would seem that if we give them "their head" sufficiently they will enter into every vocation which is supposed to belong to man, until one day we shall arrive at the interesting condition of the Indian brave, who allows the woman to do all the work while he has all the fun. There is no earthly reason why women should be chemists, any more than they should be sailors or blacksmiths; and if they would think a little more of improving their education in the "home management direction," instead of attempting to occupy positions which do not become them, it would be better. A girl should be able to handle a pestle and mortar as gracefully as she throws a stone. In the latter process it is difficult to decide whether she means to throw herself or the stone.

The above is the amiable style in which Messrs. Burgoyne, Burbidges, Cyriax & Farries in their *Monthly Magazine* encourage the earnest longings of the feminine soul towards the pure delights of a pharmaceutical career.

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A new risk and responsibility is discovered for chemists and druggists in an advertisement which is published in our pages by the well-known patent-medicine firm of Thomas Keating. Mr. Keating, it will be observed, asserts both a right of property and a peculiar kind of copyright in the show-cards which he or his agents forward to retail dealers. Mr. Keating has brought out a remarkably pretty card to advertise his insect powder. It represents in the distance a city slumbering, with the pale light of the crescent moon tinting the gloom with silver, while in the foreground the ethereal figure of Night with her trailing garments floats through the air, followed by a cherub bearing a tin of the precious gift to man which Mr. Keating offers. Surely flea-bites were never more delicately suggested! Now, a certain chemist in the West of England had exhibited that card, but over the name "Keating" he had pasted the word "Insect." The chemist has paid a small fine rather than enter the courts against Mr. Keating in this matter, so there that affair ends. We have no wish to defend the trick either on artistic or ethical grounds, but, until we are convinced to the contrary by a judicial decision, we shall venture to doubt the soundness of the legal position taken up. In face of the custom of the trade, and the manner of distribution, it would be, we judge, impossible, apart from special contract, for the publisher of those cards to maintain a right of property in them. If he has copyrighted them, as Mr. Keating has done, he would have protection against any imitation of the design; but we cannot see how the copyright law can protect an individual copy from being defaced. If we buy or have given to us a copyrighted engraving, we may not reproduce that picture for sale, but surely we may touch it up in any way that pleases us! A

dealer who should substitute his own name for Mr. Keating's would no doubt sail much closer to the wind, and it may be that he would be held to have in law produced a new card imitating the original one, and so far infringing the first owner's rights.

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The General Medical Council has been in session during the month and has re-elected Sir Henry Acland as president for a third term of five years. An incident of the session which deserves public as well as professional censure was that Mr. Macnamara, the representative of the Irish College of Surgeons, raised a discussion which occupied about forty minutes on the point of order that he was described in the minutes as "Mr." and not as "Professor" Macnamara. That discussion, the *Lancet* calculates, cost the profession 25*l.* 6*s.* 8*d.*

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The meetings of the various sections of the Society of Chemical Industry—London, Liverpool, Manchester, Birmingham, Glasgow, and Newcastle—are about to commence. The President of the Socicty is Dr. W. H. Perkin, F.R.S., of coal-tar colour renown, while the chairmen and officers of the local committees are well known in the region of chemieal enterprise. The programme for the London section is likely to be varied and interesting. The subject for the first meeting, on November 3, will be a discussion on Mr. W. S. Squire's paper on the "Processes Concerned in the Conversion of Starch into Alcohol and their Relations to Brewing and Distilling." This has already attracted much attention in the circles interested. Subsequently there will be discussions on other papers by London members, which have been printed during the recess. In December Mr. J. M. Thomson will read a paper on "Photography for those Engaged in Commercial Pursuits." The chemical treatment of sewage will be fully discussed during the session. The general secretary's office is now at Palace Chambers, 9 Bridge Street, Westminster, S.W. Mr. David Howard is president of the London section, and Mr. T. Tyrer is loeal secretary.

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A doctor who is not too squeamish must have a curious ledger. It would contain not only his legitimate account with his patient, but it may also contain a series of further accounts which he would hardly care to have brought in the light. We know there are doctors who take their commission from druggists who dispense their prescriptions. Not long ago we heard of a circular from a firm of undertakers who offered commission for recommendations; some insurance offices, it is believed, have tried to buy the goodwill and influence of the medical profession; and now it is reported that the Pleasure Steam Yacht Company offer "the usual fee of 5*l.* 5*s.*" to medical men on fares taken through their recommendation. How are we poor patients to know when we are having honest advice? Do Hastings, Cannes, or Carlsbad tip their friends? Surely the medical testimonials for whisky and other remedies are not all given out of a pure sense of duty. The fact that now and again some indignant recipient of an offer exposes it does not prove that no one accepts it. We should be glad of more information on this topic.

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In a letter published in the *Lancet* a member of the firm of Leopold Castella & Co., of Frankfort, aniline-colour makers, challenges the often-repeated assertions of disease occasioned by wearing garments dyed with aniline colours. Such assertions, he says, have never been proved by sound arguments. There are some 4,000 workmen employed in the aniline-dye works of that district. Their garments are penetrated with the dye; their faces, hands, and arms are covered with it. They inhale the dust, and swallow the dye. Among these the general state of health is at least as good as that of the workmen of any other industry. The premium for insurance against sickness is not higher than the average, and men who have been employed in the industry since 1869 are fresh and healthy. Repeated experiments have been made by feeding animals with aniline colours, especially with the much-calumniated magenta, and it has been proved that no harm whatever resulted therefrom. As to the means of fixation, for wool and silk in most cases no mordant at all is required, and the mordants used for cotton-dyeing generally are tannic acid or sulphate of alumina, which certainly do not injure the skin even in the free state. The tin salt, used for fixing cochineal, and other mordants are, perhaps, less innocent.

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We have recorded how the medical papers, one after another, have been grinding out the same old tune in reference to patent medicines with a curious unanimity of bad logic, spite, and wilful ignorance. The *Midland Medical Miscellany* of October 1 has a clever artiele exposing the sophistries of the other medical papers, and discussing the great stamp question in common-sense language. Our contemporary quotes the *Lancet's* "puerile attempt to persuade readers that the stamp upon a patent medicine increases in value during the course of its progress from the manufacturer to the consumer of the nostrum, who, instead of purchasing such stamp at its legitimate worth, pays its cost several times over. A point also is made of the commonplace fact that ordinary precaution and care is exercised in the calculation of current expenses chargeable to a business. Save the mark! Who wouldn't calculate cost? When, manifestly, reliance is placed more on sophistry than sound reasoning, the question naturally arises—Can honest conviction be the prompter?"

In one artiele the *Lancet* tells its readers that the tax was imposed to check the ever-increasing sale of quack medicines. Next week the same paper pretends it wants the tax taken off to check quackery. One argument for abolishing the duty is that those who pay it like it. The Chancellor of the Exchequer will hardly desire to sacrifice such amiable clients. It has been put forward by correspondents in the *Times*, and eagerly quoted elsewhere, that foreign quinine was to be taxed. A case needing false statements of that kind is necessarily a weak one. The *Midland Medical Miscellany* has a theory about the origin of these articles which certainly did not occur to us. He credits it to American enterprise. We are not disposed to follow this view. Our medical contemporaries are fond of trotting out their harmless thunder, and telling governments and everybody else to get out of the way, but we do not think they are so fallen as to sell their columns to any advertiser in this or the adjoining hemisphere.

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The *Lancet* of October 4 gives Dr. F. A. Mahomed a page of its space to advocate his scheme of "therapeutical reform." That gentleman does not seem to be prepared with one jot of evidence in support of the suspicions which he evidently entertains in regard to druggists generally, whom he patronises in an amusingly lofty style. Mr. Mahomed says, "I would have all medicines stamped with a 'hall mark' by an official pharmaceutical assay department. It appears to me to be practicable for the Government to establish an extensive analytical laboratory, in which all pharmaceutical preparations dispensed in this country, whether of home manufacture or imported, should be analysed, and if found efficiently and accurately prepared should be stamped and certified as genuine. The articles would be sent to the laboratory in bulk, a sample would be analysed, and the bottling and stamping would be performed while in bond. The charge made for stamping would be amply sufficient to cover the expenses of the laboratories, and would probably prove an important source of revenue to the State." Mr. Mahomed wants the "hall mark" not only on manufactured specialties, but on "packets of drugs and bottles of tinctures," and he would make "the use of uncertified drugs for dispensing the prescription of a registered practitioner an offence punishable by law." Mr. Mahomed's scheme is worth exhibition as a curiosity.

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Last month we printed some remarks sent us by a correspondent who had just travelled through the Scandinavian countries. The object of his letter was to show that English wholesale druggists seem utterly to neglect this readily-cultivated market. At the last meeting of the Pharmaceutical Council Mr. Atkins reported the friendly reception which he met with from some of the chief pharmacists in Denmark. His remarks had no commercial bearing, but his description of some of the businesses in Denmark must suggest to our wholesale houses a desire to enter some of

those gentlemen on their books. The Scandinavian apothecaries are not numerous, and an active traveller could call on them all in about six weeks. At present they draw their supplies almost exclusively through Hamburg; but, as is well known, there is no love between the Danes and the Germans, and the facilities of transport from London to the various ports are quite sufficient to ensure ready transmission of goods, while we cannot suppose that, as a market, Hamburg yet offers any superiority over London. Our correspondent, who has sent us another note, considers there is an equally good opening in sundries, surgical instruments, and special preparations. He considers that suitable representatives for such a business, acquainted with the language and the country, could easily be found in Hamburg.

Reviews AND Literary Notes.

The Veterinarian's Pocket Remembrancer. By George Armatage, M.R.C.V.S. Second edition. London: J. & A. Churchill. 3*s*.

This is a little pocket volume, no doubt of considerable usefulness for the veterinarian practitioner, though it might, perhaps, have been rendered still more serviceable by a few tables of doses, of poisoning treatments, and such-like. It does not pretend to be a guide to the treatment of horse and cattle complaints generally, though it is not quite clear where the line is drawn exactly. The subjects are arranged alphabetically, and it would seem that the author's plan diminished as he proceeded, as out of 179 pages the letter A has 41 to itself, and half the whole space is used up at the end of E. Possible poisonings and sudden injuries receive, as might be expected, the chief attention.

The National Dispensatory, containing the natural history, chemistry, pharmacy, actions and uses of medicines, including those recognised in the Pharmacopœias of the United States, Great Britain, and Germany, with numerous references to the French Codex. By Alfred Stillé, M.D., LL.D., and John M. Maisch, Ph.D. Third edition; thoroughly revised, with numerous additions and 311 illustrations. London: J. & A. Churchill, 1884. P. 16 + 1,755.

This enormous volume, quite an omnibus of pharmaceutical information, is the work of Dr. Stillé, Professor of Medicine in the University of Pennsylvania, and Dr. J. M. Maisch, Doctor of Pharmacy and Professor of Materia Medica and Botany in the Philadelphia College of Pharmacy. It looks at the world, therefore, from an American standpoint. The first edition appeared in February, 1879, with 1,628 pages, 6 inches by 9½ inches. The present edition, the third, contains 1,755 pages, 6½ inches by 10½ inches. The general index to the first edition filled 165 columns of 67 lines, that to the present edition fills 195 columns of 81 lines, thus containing nearly 5,000 more references than the first. The therapeutical index to the first fills 62 columns, to the present 105 columns of smaller type. In length, breadth, and thickness it has, therefore, considerably increased.

"The present edition of the 'National Dispensatory' may be regarded as embodying the Pharmacopœias of the four chief civilised nations," says the preface. Those of the United States (1882), Great Britain, and Germany (1882) are entirely incorporated. The French Codex appeared after the work was prepared for the press, but in time to admit of its incorporation. The statements of the Pharmacopœias have not been accepted with implicit confidence, but a laborious series of tests has been carried out, with the result of introducing many corrections. Nearly every important drug not mentioned in either of these Pharmacopœias is also described with fulness proportioned to the estimation in which it is held.

Each drug has a separate chapter devoted to it, the matter being generally arranged as follows, acacia being chosen as the example:—Title, synonyms, French, German, and English names, a brief description of the drug, and a reference to some illustration; natural order; then paragraphs on the origin, indicating all known sources; collection and commerce, with imports into the United States; description of all varieties; composition; other varieties of gum; adulterations and substitutions; pharmaceutical uses; other products of acacia; physiological and medical uses. Under opium we have the following headings:—Officinal forms of opium, origin and production, description, adulterations, examination, constituents (2½ pages), morphiometry, pharmaceutical preparations, physiological action on animals and on man (3 pages), medical uses (4½ pages), administration. The same general analysis applies, with modifications, to drugs of chemical origin.

Criticism, or even review, of such a colossal work is out of the question. The fact that a third edition is called for within five years proves its genuine usefulness. We are bound to admit that we know of no work by British authors that can be at all compared with this for extent and comprehensiveness. While we have treatises on the separate sections of its articles, chemistry, materia medica, &c., to which the authors of the present work would be the first to acknowledge their indebtedness, we have nothing which aspires to fill its position of universal provider of therapeutical and pharmaceutical information.

The Elements of Physiological and Pathological Chemistry. By T. Cranstoun Charles, M.D. London: Smith, Elder & Co. Pp. 600.

It would be difficult to praise too highly either the design or the execution of this important volume. The chemistry of physiological and pathological processes has been studied during the past twenty years with eagerness and hopefulness. It cannot be considered that the medical profession generally have as yet assimilated the abundant provision of material which the industry of chemists has put before them. Those chemists who have occupied themselves with physiological processes have put forward a vast mass of facts, and have apparently brought the various processes of life, disease, and death within the reign of law. It remains for medical practitioners, for clinical observers, and for therapeutists to take advantage of this knowledge.

Dr. Cranstoun Charles seems to have set himself the task of providing in a convenient manner a general and detailed survey of the facts of physiological chemistry. A study of his work requires a previous acquaintance with general chemistry as well as of physiology. After concisely describing apparatus, methods, and processes the author proceeds to his subject, which is divided into four parts:—(1) "Nutrition and Foods," giving the chemistry of the alcohols, carbohydrates, sugar, fat, albumin, &c. (2) "Digestion and the Secretions concerned." (3) "The Tissues: Chemistry of the Tissues, Organs, and remaining Secretions." Blood, bone, muscle, nerve, the teeth, the skin, the liver, the lungs, pus, mucus, milk, &c., fall under this section. (4) "Excreta: The Fæces and Urine." This very important subject is treated with the thoroughness it deserves. This treatise on the chemistry of the urine is very complete, and seems to have been most carefully compiled. A syllabus of a practical course of demonstrations, intended to fix on the mind the chief facts of physiological chemistry, is a valuable appendix to a work of great merit.

A clever little poem on Cod-liver Oil appears in the *New York Weekly Drug News*, of September 27, professedly written by "Spectator." Its real author was the late Mr. Henry S. Leigh. It appeared in his "Carols of Cockayne," and was quoted in The Chemist and Druggist, in April, 1869.

Dr. Julius Wise proposes to publish, during the coming year, a large volume, under the title "Encyclopædia of Medical Wit, Humour, and Curiosities of Medicine." In this undertaking he respectfully solicits the kindly aid of the profession. Witticisms and anecdotes of a humorous or curious nature are solicited. Physicians, druggists, dentists, and others supplying original contributions, will receive due credit in the work. The author is especially anxious to avail himself of every source, and would highly appreciate all information concerning publications likely to be useful for

reference. All letters, contributions, clippings, books, and other matter, should be addressed to Julius Wise, M.D., 806 Olive Street, St. Louis, Mo.

MESSRS. CHURCHILL have just published a little book of 150 pages, entitled "A Few Suggestions to Mothers on the Management of their Children, by a Mother." It is written to supply some hints on a subject which can no more be acquired without instruction than the art of making a pill or of watering a plant so as to keep it in health. It is a popular delusion "that it comes intuitively to women to take care of children, and that every woman is naturally endowed with the knowledge of how to take care of a baby, which knowledge will develop itself without any help as soon as occasion arises." But the delusion is not universal, and such books as these need only be shown on the chemist's counter to sell themselves. The present volume contains sensible remarks on various matters, which we are apt to consider generally known. As a matter of fact there are few men and fewer women who have a rational comprehension of the simplest laws of health.

Scientific Notes:

On Chemistry, Pharmacy, Botany, Materia Medica, &c., Original, Selected, and Translated.

BORAX AS AN INTERNAL DISINFECTANT.*

M. E. DE CYON, following Dumas, maintains that borax, unlike other antiseptics, is perfectly harmless, even in doses of as much as 15 grammes in the course of a day. Besides the importance of this fact in regard to public alimentation, the author considers it has a great medical interest. He believes borax taken internally in times of epidemics would prove of great hygienic value. In 1879 when the plague broke out in Russia he went to St. Petersburg and persuaded the Imperial Medical Council to recommend the use of this substance in the affected districts. This recommendation was made in a meeting of the Council on February 19, 1879, under the presidency of Dr. Pelican. The end of the epidemic, however, prevented the proof of the value of borax on that occasion. Since then M. de Cyon asserts that he has had frequent opportunities of testing the medicinal virtue of borax. He urges its employment in the districts invaded by cholera, and asserts that the workmen in borax factories have always been remarkably preserved from attacks, even when they have been in the midst of the disease. Thus in Italy, during the violent epidemic in 1864-65, none of the workmen in the seven factories at Lardarello were attacked, although in a village only 3 kilometres distant a third of the whole population was swept away. M. de Cyon recommends it to be taken in quantities of 5 to 6 grammes per day, and believes that it destroys the microbes not only in the intestinal canal, but also in the blood.

KOLA NUTS.

THE *Journ. de Pharm. et de Chim.* (October 1884) publishes a series of formulæ of preparations of Kola, by M. Natton, prefaced by the subjoined note on them, by Dr. Dujardin Beaumetz, which was read before the Société de Therapeutique on May 28, 1884. Dr. Dujardin says kola nuts are produced by the *Sterculia kola*, a tree of Central Africa. There the kola is the remedy for all diseases, and is almost worshipped by the natives. It is sold at high prices, and no important bargain is ever concluded without a gift of kola. The natives have found this fruit to possess tonic, nutritive, stimulating, and aphrodisiac properties. They use an infusion of the roasted nut as well as the nut in its natural state. Analysis shows that kola contains a large proportion of caffeine with a little theobromine and tannin. Its use is, therefore, indicated in the chronic diarrhœa of hot countries, where it has been successfully employed by naval surgeons in stomach complaints and in cachexia. Dr. Dujardin Beaumetz himself has found it useful in chronic diarrhœa and in cardiac affections. He gives 15 grammes (about ½ oz.) in the course of the day in two cups of infusion of the roasted kola, or as an elixir, or as a chocolate.

M. Natton's formulæ are applicable either to the natural or the roasted kola. A tincture is made by macerating for fifteen days 1 part of kola in 5 parts of alcohol 60°; a wine by macerating for fifteen days 100 grammes in a litre; an extract by percolating 100 grammes with alcohol 60° and concentrating the percolate to the proper consistence; a syrup is made similarly, but instead of concentrating the percolate is made with sugar to weigh 1 kilogramme. Pills are made from the extract, 10 centigrammes in each with some powdered kola, an alcoholate by macerating 1 part of fresh scraped kola in 5 parts of alcohol 80° for fifteen days; an elixir by mixing together equal parts of the alcoholate and of simple syrup; a saccharate, by rubbing together 1 part of fresh kola with 2 parts of sugar sifting and drying; lozenges from the saccharate with 1 part of tragacanth and 6 parts of water to 100 parts of saccharate with any desired flavour; a chocolate with 60 grammes of the saccharate, 40 grammes of cocoa powder, and ½ gramme of cinnamon. Lastly M. Natton gives the following form for a pleasant mixture of kola:—

Alcoholate or tincture	5 to 20 grammes
Tincture of cinnamon	1 „
Brandy	q. v.
Syrup of orange	30 grammes
Distilled water .. .. q. s. to	150 „

COLOURLESS TINCTURE OF IODINE.

MR. ROTHER, in the *American Druggist*, discusses the methods used to yield this product, which, as he says, though it does not possess the properties of tincture of iodine, has certain uses which have led to its official recognition in the German Pharmacopœia. The German process consists in reacting upon iodine with sodium thiosulphate in the presence of water, then adding a slight excess of ammonia, and finally alcohol. This tincture soon develops a very unpleasant and persistent sulphury odour. The process generally adopted is to mix sodium sulphite and tincture of iodine. The result of such a combination is sodium sulphate which precipitates, and iodhydric acid, which remains in solution when one molecule of sodium sulphite and two molecules of iodine—that is, equal weights of the reagents—are employed; or if 1 drachm of the sulphite is added to 1 fl. oz. of the tincture (= 1 iodine 2 sulphite), then sodium sulphate, sodium iodide, and sulphurous oxide result. It is therefore evident that in either case an extremely irritant body is generated; in the first instance, the free iodhydric acid; and in the second, the even more objectionable sulphurous oxide.

These considerations show that the defects of the various methods must first be overcome before colourless tincture of iodine can attain any degree of popularity in medicine. Mr. Rother believes that a solution of this problem is effected by combining the good features of all these methods. He therefore advocates the use of sodium sulphite with ammonia to remove the acidity and prevent other changes. After discussing and explaining the various difficulties, he proposes the following formula:—

Iodine	1 troy oz.
Sodium sulphite	q.s.
Ammonium carbonate	q.s.
Alcohol	q.s.
Water	2 fl. oz.

Upon 1 troy oz. of sodium sulphite and 200 grains of ammonium carbonate, each previously powdered, pour the water, and then gradually add the iodine until its colour is no longer discharged. If now the effervescence has ceased, add ammonium carbonate in proportion to the remaining iodine, but if ammonium carbonate still predominates, then add sodium sulphite in proportion to the surplus of iodine, and continue the incorporation of the iodine until all has been added, and a faintly yellow solution results, whilst some sulphite and carbonate remain in excess. Now gradually add alcohol with constant stirring until the mixture measures 12 fl. ozs. Pour this upon a muslin strainer, press the liquid out, and measure it. Mix the solid residue with enough alcohol to make the measure of a pint when united with the first expression, then press the liquor out, mix it with that first obtained, and filter the tincture through paper.

* *Acad. des Scien. and Journ. de Pharm. et de Chim.*

Solution of Subacetate of Lead as a Test for Olive Oil.

Mr. S. S. Bradford, of Charlestown, Mass., in the *American Journ. of Pharm.* says:—When cotton-seed oil is mixed with solution of subacetate of lead a peculiar red colour is always produced. The red colour produced by the solution is, I am fully convinced, peculiar to this oil, as I have been unable after experimenting with the different seed and animal oils for over ten years to obtain it from any other. This alone would cause it to be a valuable test, but not only cotton-seed but any other oil can easily be detected by its use.

Solution of subacetate of lead possesses the peculiar property of saponifying at once when shaken in the cold with pure olive oil. Now, if the sample tested contains any cotton-seed or other oil, saponification will not take place, no matter how long it is allowed to stand, or how well it may be shaken; if there is any cotton-seed oil in the sample the red colour will always be produced.

Action of Hydrochloric Acid on Lead.

S. P. Sharples, in *Chem. News*, says:—Most authors state that lead is but slightly acted upon by hydrochloric acid. In some recent experiments made with a view to destroy cotton fibre by means of the hot acid, it was found that lead-lined vessels were very rapidly destroyed by it, and that even the cold acid could not be kept in wooden tanks lined with lead. These tanks stood sulphuric acid perfectly well.

A Theory of Solution.

Mr. W. W. J. Nicol, M.A., B.Sc., in a paper read before the Chemical Section of the British Association, proposed the theory that the solution of a salt in water is a consequence of the attraction of the molecules of water for a molecule of salt exceeding the attraction of the molecules of salt for one another. It follows, therefore, that, as the number of dissolved salt molecules increases, the attraction of the dissimilar molecules is more and more balanced by the attraction of the similar molecules; when these two forces are in equilibrium saturation takes place. Any external cause tending to alter the intensity of either of these two opposite forces disturbs the condition of equilibrium, and further solution or solidification ensues. The contraction which occurs on the solution of a salt in water has been regarded as strong evidence in favour of chemical combination having taken place, but the author finds that a further contraction takes place on further dilution, even when the number of water molecules per salt molecule is far in excess of the number in the cryohydrates.

Bacteria and High Regions.*

Miguel and Freudenreich have examined the air for bacteria at various altitudes, and find that the percentage of bacteria diminishes with the altitude. The proportion of bacteria in 10 cubic metres of air in different places was found to be as follows:—

Rue de Rivoli, Paris	55,000
Montsouris Park	7,000
Room in Hotel Bellvue (Thun)	600
Outside the same hotel, 500 metres above the sea-level	21
Lake of Thun, 560 metres above the sea-level	8
2,000 metres above the sea-level	0

Pepsine Wine.

In an article by M. Vigier, published in the *Répertoire de Pharm.*, it is stated that, while absolute alcohol precipitates pepsine entirely, weaker spirits precipitate it less, and a wine or diluted spirit, containing not more than 15 per cent. of alcohol will dissolve the pepsine perfectly and will keep for some years. But M. Vigier states that a pepsine of which 50 centigrammes will perfectly digest 10 grammes of fibrine, if made into a wine or an elixir, will only have half its former digestive power.

He recommends the starchy or the extractive pepsine for alcoholic solutions. The English pepsine, obtained by scraping the membrane, and the pepsine with sugar of milk, obtained by precipitation by salt, both give very inactive wines. Glycerine he does not find a suitable vehicle for pepsine, and he likewise condemns the association with pepsine of diastase, pancreatine, hydrochloric acid, coca, quinine, bismuth, magnesia, phosphates, &c. Many of these render the pepsine almost inert. So delicate a ferment should always be administered without addition.

In testing alcoholic preparations of pepsine, 3 parts of acidulated water should be added to 1 of wine or elixir. M. Vigier has found many preparations as well as many pepsines almost valueless; but he withholds the publication of his results in this direction.

Testing Iodoform.

M. Agema, Leyden, recommends to test iodoform thus:—Add some to distilled water, shake vigorously, filter, add to the filtrate an alcoholic solution of silver nitrate, and leave in contact for twenty-four hours. Pure iodoform will only cause a scarcely-appreciable greyish-white, while impurities will form a black deposit of reduced silver. All the iodoforms which have caused bad effects when submitted to the above test have been found impure.

AN OCTOGENARIAN'S PHARMACO-MEDICAL REMINISCENCES OF SIXTY YEARS AGO.—II.

I HAVE mentioned the older and the younger Weinschenk, father and son, as renowned physicians in the days when I was an *alumnus* of the Klosterschule in Magdeburg.

These gentlemen were properly diplomated *Doctores utriusque Medicinæ*, and full Councillors of Medicine to boot. But they had much higher and truer claims to distinction; they ranked among the foremost of the then rather limited class of rational practitioners, and, to their honour be it recorded, they benevolently treated the humble barber-surgeon of whom I have spoken at length in the preceding paper as a brother healer. And the old man was very grateful; he was always shouting the praises of the two great doctors to me long before I had occasion to make their personal acquaintance, and it happened in this wise.

My pastors and masters had no objection to their young charges entrusting their dental-apparatus to the skilful care of such a man as old Waidl, but they drew the line pretty strictly at said dental-apparatus. In all more serious cases of illness, Councillors Weinschenk, the duly-appointed house-physicians to the school, were called in. So in my not unfrequent *écarts de régime*, as the French delicately term the unpleasant results of slight fits of gluttony, I was introduced first to the father, subsequently to the son.

Both the older and the younger Weinschenk shared in Waidl's predilection for treatment by simples, and the older councillor was well-nigh as enthusiastic in his admiration of the medicinal virtues of the flower of *Sambucus nigra* and the flower and root of *Arnica montana* as old Waidl himself. Sambucus tea was his great panacea in all affections arising from, or traceable to, a cold. He gave the patient a large breakfast-cup of very strong infusion of *Sambucus nigra* hot, with candied sugar and lemon-juice, with a modicum of best old Jamaica rum, had him wrapped up in blankets, put a sucking-tube in his mouth, dipping in a jug of lemonade, and bade him suck as the perspiration went on. I can from my own personal experience, and from many observations in after life, truly affirm that I know no better way to induce and maintain perspiration and to cure cold in the head, coryza, hoarseness, irritative cough, and other chest affections, also diarrhœa from cold. Dr. Weinschenk used Sambucus in connection with arnica to combat threatening erysipelatous inflammations and tumour, and to stimulate to healthy reaction sloughing ulcers, more especially when they were located in the legs.

But his great sheet-anchor of hope and salvation in the herbal storehouse was *Arnica montana*, a truly admirable remedy in a vast variety of morbid affections, which some of the more ardent followers of Hahnemann were about this

* *Chemiker Zeitung*, September 7, 1884.

time foolishly trying to claim as their master's special discovery. Weinschenk knew more about arnica, I believe, than all the greater and lesser homœopathists of the period together.

He used the flower preferentially, the root much more rarely, and the herb only in exceptional cases, where he deemed it advisable to reduce the energy of the action. He mostly employed the aqueous infusion of 2 to 4 drachms of arnica-flower in some 6 to 8 oz. of boiling water; dose, 1 to 2 tablespoonfuls every two hours. This he would prescribe in all affections exercising a depressing influence upon the nervous, vascular, and capillary systems. Infusion of arnica will occasionally excite nausea and vomiting, and the latter symptom Dr. Weinschenk held as an absolute contra-indication, but the former he would absolutely disregard, except in so far as to add a modicum of peppermint essence and lime-juice to the infusion of arnica.

For external application he used compresses, imbibed in the hot infusum vinosum, more particularly in contusions, abrasions, swellings, &c.

Dr. Weinschenk also prepared a specific gangrene powder, with one-half of pulverised flower of arnica and one-half of a mixture, in equal proportions, of powdered bark, myrrh, and camphor. This gangrene powder had, according to the testimony of Dr. Hace, then staff surgeon-general of the army corps stationed in Saxony, been most successfully applied in several of the severest cases of gangrene in the military hospital. The elder Weinschenk had also the, in our schoolboy estimation, by no means small merit of making the ague laxative, Viennensis, then the universal remedy given to an unhappy youngster after surfeits, just a little less nasty, if not more palatable, than it was before his reform, when it was an abominable mixture of a strong infusion of senna-leaves with a pretty large addition of Tartarus natronatus and sulphate of soda—occasionally of Epsom salts, too—and a notable proportion of manna, with only a little orange-peel to correct the nauseous taste. Well, the good old man added tamarinds and prunes to the senna, and left out the sulphate of soda and the Epsom salts, which made a material difference in the flavour and savour of the compound.

Councillor Weinschenk, the elder, was a tall, handsome man of commanding presence. His son was, unhappily, more than slightly deformed, but he had a wondrously good, kind face. In medical lore he was his father's equal in every way, but, a very rare exception to an over-general rule, he believed stoutly in the old gentleman and in all his ways, ideas, and proceedings, only with this distinction, that he had a pet medication of his own, which would in many cases even dispense with the father's improved Viennese draught, substituting in lieu thereof camomile tea and gruel made of groats of oats. "Hafergrützschleim und Kamillenthee" was his almost unvarying first prescription in all cases, and I must say, in our own school at least, it pretty nearly always answered the purpose. So wedded was he to these two excellent agents, that they always seemed to be the first words that instinctively rose to his lips. A curious little story was told of him in connection with this peculiarity. The stables in the rear of the premises occupied by his father and himself caught fire one night when the old gentleman was absent on a visit to Berlin. The coachman could not get the panic-stricken horses out, and he rushed in a state of terrible agitation into young Dr. Weinschenk's bedroom with the portentous information. The great healer, roused from profound slumber, just caught the coachman's despairing exclamation, "What are we to do with the horses, Sir Councillor? what are we to do with the horses?" "Give them oat-groats gruel and camomile tea, and say I will be round the first thing in the morning," was the semi-conscious reply. When the coachman, however, had succeeded at last in thoroughly rousing the doctor, the little man jumped out of bed, rushed to the burning stables, calmed the poor horses by the sound of his, to them, well-known, kindly voice, threw blankets over their heads, and led them out to a place of safety one by one, with no injury to the animals and only his own face and hands rather badly blistered, and requiring a deal of acacia, oat-groat gruel, and camomile tea to get them all right again.

I have in the course of the present paper mentioned the name of Dr. Hase, then staff surgeon-general of the army corps stationed in the province of Saxony.

Some sixty years ago this Dr. Hase, then in the zenith of his fame, was generally looked upon as the *facile princeps* among the then rather numerous class of first-rate surgical operators. He was also held to be a most learned and thoroughly sound physician, and a good chemist to boot. There was one thing, however, unhappily, that marred his name and fame—the curse of drink. Strange enough to say, perhaps, the results of this grievous vice never interfered with his wondrous operating skill. It was said, on the contrary, that a bottle of wine above his fair allowance would rather steady and nerve his hand than otherwise. He was a firm believer, on the other hand, in the truth of the Pindarean line anent the superexcellency of water—for bathing purposes, according to his creed—not for drinking. So he had a rather important bathing institution erected in Magdeburg, on the Prince's Wall, close to the Elbe, to which he transferred his consultation-room. About this time signs of eccentricity were observed in the great operator and physician; but these failed to excite much attention. One day, however, Dr. Hase, meeting the then proprietor of the Rathsapotheke (Council Pharmacy), Medical Assessor—later on Medicinal Councillor—Michaëlis in the street, told that gentleman with great glee that he was going to give a pleasant surprise to the Magdeburgers, which he fancied would more than lightly shake them out of their pococurante sloth. Michaëlis, surprised, looked straight in the doctor's face; he saw the fire of madness burn in his eyes. A man of rapid conception and equally rapid execution, he hastily took his leave of him, and rushed up to the baths, where he found a neatly-tied-up paper packet on the table, about 2 lbs. weight, with fine-grained gunpowder strewed over the top, and a burning-lens set in the open window, deftly adjusted to fully focus the powder at noon. Michaëlis at once laid hold of the packet, carried it carefully down to the bank of the Elbe, and let it gently slide into the water. It turned out afterwards that the packet contained fulminate of silver or of mercury, which the unhappy madman had been preparing for months. He was now confined, and placed under the care of a most vigilant keeper. Still, he managed one day to lull the man's watchfulness for one brief half-minute, time enough to enable him to rush upstairs, get hold of a loaded pistol hidden in a drawer, and blow his brains out. The keeper, pursuing him, was just in time to catch the falling body. This sad catastrophe occurred after my time, however.

I knew Assessor Michaëlis, of the Rathsapotheke, very well. He kindly allowed me to come occasionally to his own private laboratory, where I picked up some useful notions in the chemico-pharmaceutical line. He was a first-rate man in his profession, as, in fact, all apothecaries in Prussia were then bound to be up to certain rather wide limits. I cannot speak with certainty upon the point, but, from what I saw and gathered in recent visits to various parts of Germany, I believe nearly the same system which prevailed in Prussia in the early part of the century has, since 1874 or 1875, been extended all over the Empire. This system places the German pharmacist in an exceptional position, difficult to realise in this country; so I venture to think that a brief and succinct sketch of it, such as it existed in my time, and most probably continues in full force now, or nearly so, may prove not altogether unintcresting to the readers of THE CHEMIST AND DRUGGIST. First and foremost, then, pharmacy is a licensed and protective business, the State granting a so-called privilege or a simple concession to one duly-qualified pharmacist to every 5,000 souls (I believe 5,000 is the exact figure; at all events, it was so in Magdeburg in my time).

A privilege was much more difficult to obtain than a simple concession; but then the latter was made out to a specified person; it was terminable at the death of the holder, and could be transferred only by special favour of the Administration; whereas the privilege was conditionally saleable and heritable. Now concessions only are granted. The qualifications required were almost the same for the concessionist and the privilege-holder. It was absolutely indispensable for either to have passed, in successive periods extending over some five years, through a series of searching examinations—to wit, a preliminary one to establish general scholarship, with knowledge of Latin; an examination in technical pharmacy; another in analytical chemistry; a third in scientific pharmacy; and, lastly, a rigorous general examination. Two years' at least apprenticeship and three years' minimum service as an assistant are stoutly exacted as indispensable pre-

liminary conditions before the final examination can take place. Practically, pharmacists are some fifteen to twenty years assistants in the lower and higher grades before they can venture to think of applying for a concession, as it takes a pretty large capital to purchase a pharmacy with full plant and stock.

And this capital, however large, the concessionist is not permitted to use at his will or guise. The State compels him to keep up an amply sufficient store of fresh and perfectly good drugs, no matter even whether he may actually need them in his business or not; nor is he permitted to deal in them freely, like any other trader. A great many of his wares he is absolutely prohibited from selling, most others he must dispense only upon prescriptions of duly qualified practitioners. The State dictates the price at which he is to sell. It fixes the amount he may charge for his labour in the preparation of physics, and even the prices of the bottles, boxes, &c., in which he sends out his medicines. A grave responsibility weighs on his shoulders, and he truly has to pay rather dear for the limited monopoly which he holds. Merchant and Government official at the same time, he has to bear the burthen of the two classes without enjoying the advantages of either. The heaviest restriction, perhaps, is that fixing his selling prices for him, as the articles in which he deals are equally articles of commerce, liable to notable alterations of price at shorter or longer periods. It is very true that the authorities will from time to time modify his price-list, as occasion may seem to require. Such modifications, however, come very often "the day after the fair," as it were, when he has been compelled to supply, may be at a low price, the very article he is at the time forced to purchase at a high price himself. His shop, his warehouse, his laboratory are open at all times to searching inspection by Government officials. Whatever the state of his finances, he is not permitted to extend or restrict his business operations beyond certain very circumscribed limits. By way of compensation, as it may be taken, the pharmacist in Germany ranks socially and morally much higher than in most other countries, and instances of straightened circumstances are rare and exceptional among pharmaceutic concessionists in the Empire. At least, I can affirm that this was the case in my time in Magdeburg, where the proprietor of the Sun, the Fish, the Angel, the Court, and the Council Pharmacy were all known for wealthy men, whilst the remaining two or three—I forget which—were considered to be doing fairly well. If my memory does not mislead me, I think either the Sun or the Court Pharmacy in Magdeburg were for sale in the beginning of 1825, the estimated value being set down at from 10,000*l.* to 20,000*l.*, including premises, privilege, plant, and stock—a money value equivalent then to 40,000*l.*, at least, nowadays.

Before taking leave of this earlier part of my pharmaco-medical semi-air career, I have to say a few words about two more medical practitioners of the rationalist school, who were then laudably at work to improve the state and status of the profession in Magdeburg, Medicinal Councillors Drs. Dolhoff and Fritzsche, to wit.

The former of these gentlemen ranked air and light and moderate good living among the very highest curative agents. He would not allow a sick-room to be heated above 58 to 60° Fahr., and always insisted upon proper ventilation and free access of light—darkened rooms he would only consent to in severe cases of measles, never in small-pox. When he came into the sick-room of a small-pox patient he pulled off with his own hands the four or five feather beds which people were then in the very foolish habit of heaping upon the unhappy sufferer; he would then rush to the window to let in the air. He would order the patient to be properly fed. "He (or she, as the case might be) is fighting a fierce battle against a formidable disease, and he needs strength for the unequal combat. Starvation will not cure the small-pox, but it will finish the patient." I think, if I remember aright, Dr. Dolhoff was the first to recommend a mask of belladonna extract over the face, and the bosom and arms in women, to shield them from the danger of disfigurement. Many years after I met the same proposal again in France—of course as something brand new and never heard of before. It would appear, however, the method premised by Dolhoff and his subsequent French follower never took root in Germany or in France.

Dr. Fritzsche has the deserved reputation of being one of the profoundest scholars in materia medica, and particularly in pharmacal botany. I had once the distinguished honour of being in his company in a visit to the Rathsapotheke, where he astonished even the most learned experts by his extensive accurate knowledge of leaves, flowers, roots, &c., of medicinal plants, and his intimate familiarity with the genera and species that had supplied them.

In my next paper I propose to relate my experience of the cholera in Berlin in the year 1831, when the Asiatic scourge might be said to have paid its first visit to one of the capitals of Europe.

Miscellaneous Formulæ.

FACE-WASH.—The following face-wash is harmless, and is highly recommended by those who have used it:—Boil 600 grains of barley down to one-half, with 12 quarts of soft water; strain the decoction through a cloth, and add 25 grains of Peruvian balsam. Use morning and night with a flannel cloth.—*St. Louis National Druggist.*

RAZOR PASTES.—The following are given and quoted in Stearn's "New Idea":—

I.

Jewellers' rouge, plumbago, suet; of each equal parts.
Mix.

II.

Prepared putty powder (levigat. oxide tin) ..	1 oz.
Oxalic acid powdered	1¼ oz.
Powdered gum arabic	20 grains

Make a stiff paste with water q. s. and evenly and thinly spread it over the strop, the other side of which should be covered with any of the common greasy mixtures. With very little friction this paste gives a fine edge to the razor, and its action is still further increased by slightly moistening it, or even breathing on it. Immediately after its use, the razor should receive a few turns on the other side of the strop.

III.

	Parts
Diamond dust (levigated quartz)	1
Jewellers' rouge	1
Suet	2

—*Cooley.*

IV.

	Parts
Levigated emery	4
Deer suet	1

V.

	Oz.
Powdered Turkeystone	4
Jewellers' rouge	1
Prepared putty powder (oxide of tin)	1
Hard suet	2

—*Cooley.*

VI.

	Parts
Levigated emery	2
Plumbago	1
Jewellers' rouge	1
Suet	1
Yellow wax	½

—*Stieren.*

VII.

	Oz.
Graphite (plumbago) levigated	½
Caput mortuum, levigated	½
Soap from suet	¼
Yellow wax	1
Olive oil	½

Melted together.

—*Neynaber.*

ARNICA JELLY.—

Starch	280 grains
Glycerine	4 oz.
Water	1 oz.

Mix. Heat to 240°, or until the starch grains break and the mass appears transparent; when nearly cool, add tincture arnica, ½ oz. with oil of rose and red colouring to suit. For chapped hands face, &c.

—*Chicago Pharm.*

NORTON'S COMPLEXION BEAUTIFIER.—

	Parts
Aqua ammonia	2
Bay rum	2
Rose water	2
Borax	2
Glycerine	1
Aqua dest.	16
Spts. juniper co.	16

Mix. Apply to the face and neck with a soft woollen cloth. Removes tan, freckles, pimples, and blackheads.

—*Ind. Pharm.*

DISINFECTANT FOR SICK-ROOMS.—

	Parts
Camphor	20
Hypochlorite of lime	50
Alcohol	50
Water	50
Oil of eucalyptus	1
„ clove	1

Dissolve the oils and camphor in the alcohol. Mix the hypochlorite of lime with the water, and add this to the alcoholic solution in a capacious vessel, and keep it cool until the mixture is complete.

—*National Druggist.*

FRENCH CHEAP BEVERAGES.—The following formulæ are given in the *Mineral-water Trade Review* by a correspondent at Nice :—

Liquorice Wine.—Water, 5 gals.; liquorice root, 2 lbs.; cream of tartar, 4 oz.; brandy, 1 gal.; elderflowers, 1 oz.

Household Beer.—Water, 5 gals.; treacle, 4 lbs.; hops, 4 oz.; gentian root, 2 oz.; yeast, *q.s.*

Fruit Wine.—Water, 20 gals.; dried grapes or apples, 6 lbs.; spirit of wine, 4 oz.; fennel and coriander seeds, of each 1 oz.; hops, 4 oz.; yeast, *q.s.* These three are all prepared by decoction or hot infusion, the yeast added to the clear liquor, which is allowed to ferment four or five days at a moderate temperature, and is then fit for bottling.

Lafayette Wine.—Moist sugar, 3 lbs.; violets, elderflowers, and coriander seeds, of each ¼ oz.; vinegar, ½ pint; water, 5 gals.; macerate for four days, filter and bottle, the corks being secured by string or wire.

The following formula for *Artificial Cider* is given by M. Chevallier, who says that when carefully prepared it is difficult to distinguish it from muscat wine; the cost price comes at about 1½*d.* per bottle; water, 20 gals.; moist sugar, 12 lbs.; tartaric acid, ½ lb.; spirits of wine, 3 pints; elder and melilot flowers, of each 4 oz.; when the fermentation is finished it should be placed in a cool cellar and left to repose for ten days, fine with isinglass and bottle; the bottles should be kept lying down.

The popular drink, *Coeo*, which is sold by itinerant vendors in all our streets, is made thus: liquorice root, 4 oz., macerated in 2 gallons of water for a few hours, add to the clear liquor the peels of two lemons and aniseed liquor ¾ pint.

BRASSICON is a mixture much in use in the province of Kief for headache. It is compounded of—

Oil of peppermint	30 grains
Oil mustard volatile	6 drops
Camphor	10 grains
Ether	1 drachm
Alcohol, 90 per cent.	3 drachms
Tincture of balm	q.s. to colour

—*Ph. Z. f. Russ.*

LINIMENT FOR DEAFNESS AND EAR-ACHE.—

	Parts
Camphorated chloral hydrate	5
Glycerine	33
Oil of almonds	20

A few drops of the mixture on a piece of cotton wool to be applied twice a day. It is said to have been used with success.—*Leitmeritzer Rundschau*, September 18, 1884.

POLISH FOR BRONZE, BRASS, AND SILVER.—50 g. of cocoanut soap cut up in small pieces are gently heated with sufficient water to form a pasty mass, to which is added a mixture consisting of 5 g. of tripoli and 1½ g. of ammonium carbonate. The polish is put up in stone jars covered with parchment paper.—*Leitmeritzer Rundschau*, September 18, 1884.

Medical Gleanings.

NITRO-GLYCERINE IN NEURALGIA.—Dr. Jas. E. Bramwell, Perth, reports in the *Brit. Med. Journ.* a case of violent and persistent neuralgia occurring in a patient eighty years of age quickly cured, after many other remedies had failed, by drop-doses, three times daily, of a 0·1-per-cent. (1 per 1,000) solution of nitro-glycerine.

SCIENTIFIC NOMENCLATURE.—Some doctors, and patients, too, have been worrying their brains about the nature and causes of "hay-fever." A Baltimore professor has now put the matter in a clear light by his definition of the complaint as a "Coryza vaso-motoria periodica."

WOMAN'S DIAGNOSIS.—In an address at the hundredth anniversary of the Harvard Medical School, Dr. Oliver Wendell Holmes said:—"I have often wished that disease could be hunted by its professional antagonists in couples—a doctor and a doctor's quick-witted wife making a joint visit and attacking the patient—I mean the patient's malady, of course—with their united capacities. For I am quite sure that there is a natural clairvoyance in a woman which would make her as much the superior of man in some particulars of diagnosis as she certainly is in distinguishing shades of colour. Many a suicide would have been prevented if the doctor's wife had visited the victim the day before it happened. She would have seen in the merchant's face his impending bankruptcy, while her stupid husband was prescribing for his dyspepsia and endorsing his note; she would recognise the lovelorn maiden by an ill-adjusted ribbon, a line in the features, a droop in the attitude, a tone in the voice—which mean nothing to him, and so the brook must be dragged to-morrow. The dual arrangement of which I have spoken is, I suppose, impracticable; but a woman's advice, I suspect, often determines her husband's prescription. Instead of a curtain lecture on his own failings, he gets a clinical lecture—on the puzzling case, it may be, of a neighbour suffering from a complaint known to village nosology as 'a complication of diseases,' which her keen eyes see into as much better than his as they would through the eye of a small-sized needle. She will find the right end of a case to get hold of, and take the snarls out as she would out of a skein of thread or a ball of worsted, which he would speedily have reduced to a hopeless tangle."

A DECOCTION OF LEMON is recommended in the *Brit. Med. Journal* by Dr. Lauchlan Aitken, of Rome, as an antipyretic He says Dr. Maglieri recommended it a year ago as a simple cure for ague, and that it has been used with surprising success in malarial affections. Two other Italian doctors have since written favourably concerning it, one asserting that it is superior to quinine. Dr. Aitken has employed this decoction in about a dozen cases of enteric and intermittent fevers, "and the effects observed have been as good as those of large doses of quinine." He finds it particularly suitable when complications such as jaundice contra-indicate quinine. The lemon-decoction could scarcely aggravate such a condition, and, as it is not disagreeable to the taste, the nausea resulting from the jaundice was not increased. It was always prepared as directed by Dr. Maglieri; a freshly gathered and unpeeled lemon being taken, cut into thin slices, put in three teacupfuls of water, and boiled down to one teacupful in a clean earthenware jar. This quantity of the decoction was then allowed to stand overnight in the open air, and given the first thing in the morning, after the liquid had been separated from the rind, pulp, and seeds, by careful filtration and compression just before it was drunk. It has never seemed necessary to give the decoction prepared from more than one lemon daily. Freshly plucked lemons had more apparent effect than those not quite recently gathered, a serious drawback to the use of the decoction in countries where there are no lemon-trees. But the active principle contained in the decoction will no doubt soon be extracted, and come into general use. What that is is, as yet, quite uncertain, although it is obvious that it is not the citric acid. The alkaloidal principles, hesperidine and limonine, said to be obtained from lemons, are quite unknown to medicine; and no experiments have been made to ascertain their physiological properties. Dr. Aitken hopes that the remedy will prove a potent, safe, and cheap antipyretic.

ANTISEPTIC INHALATION.—In an article in the *Medical Times* of September 20, Dr. Ward Cousins, Portsmouth, explains his views on the principles of antiseptic inhalation, and also explains the advantages of the antiseptic inhaler designed by himself and manufactured for him by Messrs. S. Maw, Son & Thompson. He does not know of any evidence that any kind of inhalation will destroy the germs on which, according to Koch, phthisis depends, nor does he believe that any form of filtering respirator will prevent the inspiration of such germs. But great benefit has been found to result from inhalation in consumption, and, though he considers a part of the benefit is due to the mechanical stimulus to the expansion of the lungs thus induced, he believes the addition of an antiseptic agent to the vapour is beneficial. The experience of most practitioners, he says, is clearly in favour of the direct inhalation of dry vapours. The main object of his own instrument seems to be to attain the utmost degree of lightness.

CHOLERA INFANTUM.—In the treatment of this trouble, there is very little difficulty in distinguishing it from the simpler forms of the bowel complaints. Diarrhœa from errors in diet, malaria, indiscretions on the part of the mother, &c., terminates favourably in most cases after removal of the offending ingesta. In such cases we can assist nature by the use of a little hydr. cum cretâ, and afterwards regulating the diet and surroundings. In cases complicated with malaria, of course we must use quinine combined with the aperient. If the case should assume all those severer symptoms, viz., excessive watery stools, emaciation, with great prostration, then we know at once that we have a case of cholera infantum to deal with. This trouble occurs during the heated term—no doubt on account of the extreme heat, teething, vitiated atmosphere, and other influences, all of which combined produce extreme debility, the most prominent symptom being indigestion to begin with, then weakness and relaxation of the whole system. The same trouble, just now, is quite prevalent with adults, only less severe, the subjects being better able to bear it and better able to take care of themselves. With adults the remedy is abstinence from food to begin with, and rest, with a little brandy or ginger as a stimulant; a light, easily-digested diet, with very little meat, salt smoked-meat being the best if any is taken. Thus we have the benefit of chloride of sodium and creasote, as purifiers which obviate fermentation. The value of chlorine seems frequently to be overlooked; it is far superior to all other agents of this kind, and, no doubt, the antifermentative properties of calomel depend on the chlorine it contains. So it is with the bichloride of mercury, about which there has been such an antiseptic craze. The principles to be followed in cholera infantum are two—viz., nourishment and support. Very little food to begin with, in order to give the stomach a rest, and stimulants to keep up the strength. I use brandy and water very freely from the beginning, and when the little patients perceive the effect of it they take it with great avidity. In fact I consider it more important than anything else. Milk can be used with lime-water, or prepared with pancreatic extract, according to Dr. J. Lewis Smith. The lime-water keeps the milk from curdling, and seems to act as a kind of natural astringent. I also use tender raw beef in some cases, chopped up into a fine jelly, seasoning, forming it into a little cake and warming it with a very little fresh butter, merely enough to turn it white on each side and take away the raw taste. I give as medicine a mixture of rhubarb, soda, and peppermint. Thus, for a child six or eight months old:—

Rhei pulv.	8 gr.
Sodæ bicarb.	8 gr.
Tr. o'. menth. pip.	16 gtt.
Syr. simp.	ʒiv.
Aquam q. s. ad	ʒij.

M. Sig. A teaspoonful every two hours when diarrhœa is troublesome.

The rhubarb acts as a tonic and indirect astringent at the same time, the soda being the antiferment. Camomile tea I have found to be of great service all through the disease, acting as an elegant tonic and stomachic. I have the abdomen encased in a good flannel bandage with stimulating applications. I never use astringents or opiates in any form, which I consider worse than useless. Opiates always interfere with the digestion.—*Dr. G. A. Williams*, in the *Therapeutic Gazette*, Detroit.

Personalities.

MR. N. M. FALKINER, M.B., F.C.S., has been appointed joint lecturer in chemistry at the Carmichael College, Dublin.

MR. THOMAS CLARKE, chemist, of the Market Place, Stockport, has resigned the office of chairman of the Stockport Fruit-preserving Company (Limited).

MR. GEORGE W. PRATT, late of Cavendish Street, Manchester, has removed his chemists' and dental business to 44 Stretford Road.

MR. W. A. WRENN, formerly president of the Chemists' Assistants' Association in London, has gone into partnership with Mr. G. H. Gregory, pharmaceutical chemist, East Street, Taunton.

MESSRS. KUHN & CO., of 6 Mincing Lane, wish us to say that they are not in any way interested in the failure of the Fabbrica Lombarda, of Milan. The reference last month should have been to Mr. B. Kühn, of St. Mary-at-Hill.

MR. JONATHAN JESSOP, chemist and druggist, 11 Corn Market, Halifax, has retired after being in business thirty-four years, and has sold his business to Mr. George A. Parkin, from Messrs. Savory & Moore, London.

AT the recent poultry shows held at Bicester (Oxon) and Watton, Mr. H. R. Platten, jun., chemist, of Fakenham, was awarded the first prize for his Dorking and Hamburg fowls: also second prize at the Long Sutton Show.

MR. ROCKE, of the firm of Rocke, Tompsitt & Co., wholesale druggists, of Melbourne, and 119 and 120 London Wall, informs us that he will leave London by the *Austral* on November 12.

THE *American Druggist* reports that Mr. G. Harold Kent, of the firm of G. B. Kent & Sons, had almost completed a business tour round the world. Starting from England last October, he travelled overland to Venice, thence *viâ* Suez Canal to Bombay, made the tour of northern India, arriving at Calcutta for the opening of the Exhibition on December 4, where his firm secured the gold medal for excellence; thence southwards *viâ* Ceylon to the leading cities of Australia and New Zealand. Mr. Kent spent five months south of the line, and we are glad to hear that his journey has been satisfactory.

WE referred last month to Mr. Horace Davenport's splendid swimming performance from Southsea to Ryde and back. It appears that gentleman is nearly as much at home under the water as on it. We have had no training in writing sporting paragraphs, so we take the following from a recent *Weekly Dispatch*. It occurs in an account of some performances at the Lambeth Baths:—Lack of interest in the 220 yards race on Monday was amply compensated for by the fine show made in the plunging championship contested the same evening. Ex-champion Davenport handsomely obliterated his own record (63 feet 10 inches), made in the same bath two years ago, by a splendid plunge of 64 feet 8 inches. Even this, however, was not an absolute best on record, imaginary honours in this direction having rested, since July 17, 1879, with R. Green, who at Liverpool on that date was credited with a plunge of 68 feet 4 inches. Mr. Green's so-called record was, it would seem, the special mark which Mr. Davenport had set himself the task of rubbing out, for, seemingly unsatisfied with the result of his efforts on Monday night, he returned to the attack the following evening, at Marylebone Baths, on the occasion of the Otter Club's annual entertainment. This time Davenport accomplished 67 feet 4 inches—plunging actually within about half a yard of the entire length of the bath. Ninety-nine men out of a hundred would probably have rested content, but Mr. Davenport is not one of those who, having put their hands to the plunge—I mean the plough—are lightly turned back. He resumed operations on Thursday evening at the Ilex Club's entertainment at Lambeth Baths, and at his first plunge went three inches better than on Tuesday. At his second essay—after being 1 min. 35 sec. in the water—his plunge was announced as 70 feet 7 inches—a really magnificent performance. Green's "record," about which nobody knew enough to speak with anything like authority, is thr satisfactorily disposed of for all time, but even now it may

that Davenport is not yet happy, for it is said that in March, 1880, at Melbourne, one Strickland, an Englishman, plunged 73 feet 1 inch from a diving-board elevated 5 feet above the water. It is true that Strickland was a "pro," that Australian "records" are as a rule very peculiar, and that unless they can be supported by testimony such as we can understand and accept they must always be passed over as at least doubtful. But these considerations will not, I fancy, restrain Davenport from essaying to beat Strickland's supposititious performance at the earliest opportunity. It is understood that the Australian plunge was made from a spring-board, and with a stream. If so it bears no comparison with Mr. Davenport's performance.

Trade Notes.

By an accident to the type in our last issue, the reduced price of Mr. S. Clarke's nightlights was printed as 7*s.* per dozen wholesale, instead of 7*s.* 6*d.*, as it should have been.

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A second edition of the reprint of the quaint medical tract on "Ruspini's Styptic" has been sent to us, and may doubtless be obtained from the proprietor, Mr. F. Orde Ruspini, The Park House, Knutsford, Cheshire.

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The Chesebrough Manufacturing Company publish as an advertisement the terms of a judgment they have gained in the Supreme Court of New York, restraining the infringement of their trade-mark.

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Messrs. Cassell, Smith & Co., 80A Fenchurch Street, E.C., have disposed of the tea and coffee branch of their business (which was established by the late John Cassell as far back as 1847) to Messrs. John Cassell & Co., the responsible managing partner of whom will be Mr. G. C. Tyler Smith. Messrs. Cassell, Smith & Co. will continue their business of petroleum importers and merchants as heretofore.

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Mr. Hickisson, of Southgate Road, the leader of the marking-ink trade, has brought out a new style of pedestal-case, entitled the "Eddystone." The name is sufficiently suggestive of the shape, and the new pedestal, which is provided with pen and linen-stretcher, is an attractive article. Mr. Hickisson has also shown us a very well got up bent-glass counter case, which he presents to those customers who buy his ink in the necessary quantity.

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A curiously-introduced novelty has been brought under our notice. It is the "Elixir Dentifrice" of the Reverend Benedictine Fathers of Olivet (R.R. P.P. Bénédictins olivetains), of the Abbey of Soulac (Gironde), France. These worthy fathers are engaged in clearing away the sand which has buried their old monastery and the venerable Basilik of Notre Dame de la Fin-des-Terres, and in the course of their researches they have discovered a formula for an elixir dentifrice, devised by the Professor Pierre Boursand, who seems to have flourished in the fourteenth century. They had some difficulty in understanding the old gentleman's document, but they have managed to interpret its general sense, and they assert and give testimony to the effect that it is a most valuable application for the preservation of the teeth and the prevention of toothache. After some hesitation the reverend fathers have resolved to offer this elixir for general sale to help them in obtaining funds for the recovery of their magnificent Roman Basilik. They have made a tooth-powder and a tooth-paste of similar ingredients, and the style in which they put all these up for sale is very elaborate. M. Seguin, Bordeaux, is exploiting the business commercially, and Messrs. Chas. Pembo & Co., 11 Queen Victoria Street, E.C., are agents for the United Kingdom.

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Evans, Son & Mason (Limited).—This is the conversion to a company of the business of a wholesale druggist and chemist, carried on by Mr. Henry Sugden Evans, at Montreal and Toronto, Canada. It was registered on October 1, with a capital of 50,000*l.*, in 10*l.* shares. The subscribers are:—

	Shares
*Edward Evans, 56 Hanover Street, Liverpool, wholesale druggist	1
*J. J. Evans, 56 Hanover Street, Liverpool, wholesale druggist ..	1
*E. Evans, jun., 56 Hanover Street, Liverpool, wholesale druggist	1
*W. P. Evans, 56 Hanover Street, Liverpool, wholesale druggist..	1
J. Blyton, Cheetham Hill, Manchester, chemist and druggist ..	1
Michael Conroy, 10 Radnor Place, Liverpool, chemist	1
William Wellings, Fairfield, cashier	1

The number of directors is not to be less than three nor more than seven; qualification, shares or stock of the nominal value of 1,000*l.*; the first are the subscribers denoted by an asterisk. The board will be entitled to such sum not exceeding 500*l.* per annum as the company in general meeting may determine. An agreement of August 29 regulates the purchase, the consideration being 760 fully-paid shares and the satisfaction and discharge of the debts and liabilities of the vendor in respect to such business.

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Mr. H. Sugden Evans has retired from the business, and has accepted the appointment of chief analyst for the Dominion of Canada. The chief management in Montreal will devolve upon Mr. Alfred Henry Mason, F.C.S., who for twenty years was with Messrs. Evans, Sons & Co., of Liverpool. The shares will not be offered to the general public, the capital having been subscribed privately.

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Chemists' Circulars.—A little novel style in the composition of a circular can do no harm, and it may be some English druggists will catch an idea after reading the following, which is printed in Stearn's "New Idea," where it is stated to have been issued by Mr. C. W. Phillips, of Cincinnati:—Our new drug store is now open and ready for business. We shall endeavour at once to please our customers and to furnish reliable articles at reasonable prices. We desire to say at the very outset that we do not expect anyone to patronise us because we happen to belong to the same church, society, club, or whatever else it may be, nor because we patronise them. *We* are in the habit of dealing where we think *we can do the best. We do not* desire to make capital out of our religion or social relations, but desire trade only on business principles. No one is solicited to trade with us unless they feel that it is to *their* interest to do so. We do not desire to open an account with anyone who is "too nice" to receive a statement on the first of the month, neither will we continue an account with anyone who does not pay promptly, no matter how good they may be, nor what they are worth. We consider those our true friends who pay for what they get. All persons having prescriptions filled at our store will be entitled to the return of the original prescription, or a copy of the same if they so desire, but no prescription containing strychnia, arsenic, or other well-known poison in any quantity whatever will be dispensed unless we are permitted to keep the *original* prescription on file. Of course a copy will be furnished if desired. When the original prescription is returned, it will have to be brought back when it is to be refilled, as we make no record of such prescriptions. It seems to be a popular idea that there is a compact between druggists and physicians, and that physicians get a percentage, &c., &c. We hear it every day. *We* no not know of any such compact; *we never made a compact of that kind*, and, what is more, never expect to. We desire to state further that we are not under any *special* obligation to any physician, *except* to put up his prescriptions just as he desires. When we receive a prescription from a physician, we do not think it in good taste to criticise it in any manner, but consider it our business to fill it without word or comment, provided it will not kill. We are not physicians, but pharmacists. We do not practise medicine. If we do not have the material in stock to fill a prescription properly, we will tell you so frankly, and you can choose between going elsewhere or waiting till we obtain it, as we consider our reputation of far more value than the money we can make on any prescription or any customer. These things will happen in the *best regulated stores*, and it is not worth while to conceal the facts. Our stores will be open on Sunday for the sale of medicine between the hours of 9 and 10 A.M., and 1 and 2 P.M., 5 and

6 P.M.; while we will be pleased to furnish medicine at any time, either day or night, yet we do not pledge ourselves to remain at home *all day* Sunday for that purpose. We will be pleased to have you call whenever you can make it convenient, whether you wish to purchase or not. We think you will like our way of doing business, and assure you a hearty welcome when you call. Orders will be received by telephone, and prescriptions and medicines delivered free of charge.

COMPANIES REGISTERED.

QUININE SYNDICATE.—Objects: To purchase and prepare the cinchona bark, and to carry on the business of quinine manufacturers. Capital 1,500*l.*, in 10*l.* shares. Signatories: S. Howard, 35 Queen Victoria Street, 1 share; S. Grady, Dashwood House, 25; W. Tryett, 32 Great St. Helen's, 25; P. M'Fudzen, Madras, 25; H. B. Arbuthnot, 33 Great St. Helen's, 25; A. C. Walters, 44 Elm Park Gardens, 1; S. Jennings, Westbury House, Denmark Hill, 1. Registered without articles of association by Ochme & Summerboys, 167 Gresham House.



[The following list has been compiled expressly for THE CHEMIST AND DRUGGIST by G. F. Redfern, Patent Agent, 4 South Street, Finsbury, London, and at Paris and Brussels.]

Applications for Letters Patent:—

Acid Ethers of Gums.—12,807.—September 25, 1884.—J. Imray.—A communication from Wm. E. Schaal, of Stuttgart. Process for the production of the acid ethers of resinous gums, such as copal and the like.

Acids, Soaps, &c.—12,806.—September 25, 1884.—J. Imray.—A communication from Wm. E. Schaal, of Stuttgart. Process for converting petroleum and similar hydrocarbons into acids, soaps, and compounds of resin and other kind.

Alum.—12,054.—September 5, 1884.—W. D. Carzon and G. Jones, of Lincoln's Inn Fields, London. Improvements in the manufacture of alum.

Artificial Teeth.—12,650.—September 20, 1884.—B. J. B. Mills.—A communication from J. C. Piraud, of Lyons. A new base for the mounting of artificial teeth.

Artificial Teeth.—13,064.—October 2, 1884.—W. O. Walley, of Manchester. Improvements in artificial teeth.

Bleaching.—13,105.—October 2, 1884.—J. B. Thompson, of Fleet Street, London. Improvements in bleaching.

Bottle-holder.—11,887.—September 2, 1884.—C. Walton, of Queen Victoria Street, London. A bottle-holder or stand.

Bottle-Washing Machines.—12,856.—September 27, 1884.—J. B. Foxwell, of Manchester. Improvements in bottle-washing machines.

Bottling Liquids.—12,789.—September 25, 1884.—T. Cockcroft, of Quality Court, Chancery Lane, London. An improved apparatus for bottling aërated and gaseous liquids.

Candles.—11,963.—September 3, 1884.—A. Wright, of Southampton Buildings, London. An improved manufacture of hygienic candles, night-lights, and the like.

Carbonating Liquids.—11,880.—September 2, 1884.—F. G. Riley, of Southamptou Buildings, Loudon. Improvements in apparatus for carbonating liquids or semi-fluids.

Chromic Acid.—12,834.—September 26, 1884.—W. A. Rowell, of Southampton Buiidings, Loudon. The manufacture of chromic acid or trioxide of chromium.

Closing and Opening Bottles.—12,910.—September 29, 1884.—S. Bunting and F. O'Rorke, of Dublin. An improved method for closing and opening bottles containing liquids.

Corking Bottles.—12,335.—September 12, 1884.—D. Bryce, of Kensington Square, and W. Bowley, of Young Street, Kensington, London. Corking bottles.

Corking Bottles.—13,037.—October 1, 1884.—A. W. L. Reddie.—A communication from E. Gervais, of Paris. Improvements in machines for corking bottles.

Disinfectant, &c.—12,713.—September 23, 1884.—W. G. Gard, of South Street, Finsbury, London. The manufacture of an improved disinfectant, deodoriser, and precipitant.

Dyeing Substances.—12,490.—September 17, 1884.—H. Grandage and K. E. Steel, of Bradford. An improved process in dyeing with substances coutaining tannin or tannic acid or gallotannic acid.

Distilling Petroleum.—12,498.—September 17, 1884.—J. C. Mewburn.—A communication from the Halvorson Process Company, of the the United States. Improvements in processes and apparatus for dividing and distilling crude petroleum, and for refining the products obtained.

Filling Bottles.—12,512.—September 17, 1884.—J. J. Varley, of Merton, Surrey. Improvements in machinery for filling or charging bottles with aërated or gaseous liquids.

Filling Bottles.—12,774.—September 25, 1884.—W. Bruce, of Birkenhead. Filling aërated waters and like beverages in cork and patent stopper bottles.

Filtering and Deodorising Compounds.—12,918.—September 29, 1884.—E. Johnson, of Westminster, London. Improvements in carbonising retorts for the manufacture of filtering and deodorising compounds and for other purposes.

Filtering-apparatus.—12,520.—September 17, 1884.—J. Kroog, of Southampton Buildings, London. An improvement in filtering apparatus.

Filtering-machines.—12,694.—September 23, 1884.—J. A. Crocker, of Chancery Lane, London. Improvements in filtering-machines.

Filters.—12,287.—September 11, 1884.—E. M. Knight, of Halifax, Yorkshire. Improvements in filters.

Gloss Starch.—12,326.—September 12, 1884.—W. T. H. Carman.—A communication from W. Zwick, of Neumühle-Albersweiler. Improvements in gloss starch.

Hydrates of Barium, &c.—11,947.—September 3, 1884.—H. L. Pattinson, of Fleet Street, London. Improvements in the manufacture of hydrates of barium and strontium from their ores.

Hydrates of Barium, &c.—12,755.—September 24, 1884.—H. L. Pattinson, of Fleet Street, London. Improvements in the manufacture of barium and strontium from their ores.

Hydrochloric Acid Gas.—12,421.—September 15, 1884.—W. L. Wise.—A communication from Messrs. Solvay & Co., of Brussels. Improvements in obtaining hydrochloric acid gas from a solution of hydrochloric acid.

Infant's Feeding-bottle.—12,460.—September 16, 1884.—C. W. Chapman, of Goldhawk Road, Shepherds' Bush, London. An improved infant's feeding-bottle.

Liquid Testing-apparatus.—12,585.—September 19, 1884.—J. O'N. Mackle, of Liverpool. Improvements in sampling and testing-apparatus for spirituous liquors or other liquids.

Measuring Liquids.—11,977.—September 4, 1884.—F. S. Foley, of Barrow-in-Furness, Lancashire. Measuring liquids.

Medical Belts.—12,553.—September 18, 1884.—B. Wecksler, of Chancery Lane, Loudon. Improvements in electric belts and corsets for medical purposes.

Ointment.—12,545.—September 18, 1884.—M. King, of Fleet Street, London. An improved healing ointment for cutaneous disorders.

Packages for Containing Caustic, &c.—12,159.—September 9, 1884.—J. Clare, of Penketh, near Warrington. Improvements in packages for containing caustic, soda, and other articles, and in the lids or covers for the same.

Paint.—12,280.—September 11, 1884.—A. Parkes, of Lincoln's Inn Fields, London. Improvements in the production of compounds capable of being employed for the coating or covering of metallic, animal, vegetable, or other surfaces.

Phosphatic Materials.—12,718.—September 23, 1884.—H. Brunner, of Liverpool. Improvements in the treatment of certain phosphatic materials.

Pigment.—11,930.—September 3, 1884.—J. Connor, of Glasgow. An improved black pigment.

Pigments.—12,767.—September 24, 1884.—W. D. Curzon and G. Jones, of Lincoln's Inn Fields, London. Improvements in the manufacture of pigments.

Poison-bottle Safeguards.—12,113.—September 9, 1884.—G. L. Rands, of Surrey Chambers, the Strand, London. Improvements in poison-bottle safeguards.

Purifying Acids.—11,866.—September 2, 1884.—J. Meikle, of Glasgow. Improvements in purifying sulphuric and sulphurous acids and their salts.

Purifying Water.—12,256.—September 10, 1884.—W. Anderson, of Westminster, London. Improvements in apparatus for purifying water.

Purifying Water.—12,409.—September 15, 1884.—C. Lyle and J. J. Eastick, of Lincoln's Inn Fields, London. An improved process for purifying water contaminated with impurities, such as sewage-waters, river-waters, or the like.

Salts of Ammonia.—12,174.—September 9, 1884.—W. Arrol and J. Meikle, of Glasgow. Improvements in apparatus for making salts of ammonia.

Separating Salts from Solutions.—12,483.—September 16, 1884.—O. Braun, of Southampton Buildings, London. An improved method or process for separating salts from solutions containing the same.

Separating Solid Paraffin.—11,987.—September 4, 1884.—G. T Beilby, of Glasgow. Improvements in separating solid paraffin from oils.

Settling-tanks.—12,138.—September 8, 1884.—B. H. Remmers, of Chancery Lane, London. An improved draining-off valve for settling-tanks.

Syphons.—12,521.—September 19, 1884.—W. Clark.—A communication from E. Fitch, of the United States. Improvements in syphons.

Starch Cake.—11,955.—September 3, 1884.—J. C. W. Stanley, of High Holborn, London. Improvements in the treatment of starch cake and apparatus therefor.

Stopper Covers.—12,781.—September 25, 1884.—J. F. Smith, of Belfast. Improved machinery for making covers for corks or stoppers.

Stopping Bottles.—11,896.—September 2, 1884.—H. Botten, of Southampton Buildings, London.——11,938.—September 3, 1884.—J. T. Baharie, of Sunderland.——12,096.—September 6, 1884.—W. Lawson, of Dublin. —— 12,116.—September 8, 1884.—G. Sheath, of Birmingham.—— 12,156.—September 9, 1884.—W. & S. Hill, of Quality Court, London.——12,260.—September 10, 1884.—W. E. C. Spencer, of High Holborn, London.——12,453.—September 16, 1884. —D. Rylands, of Stairfoot, near Barnsley.——12,511.—September 17 1884.—J. J. Varley, of Merton, Surrey.——12,534.—September 18, 1884.—J. Bloeksidge, of Birmingham.——12,717.—September 23, 1884.—L. A. Groth.—A communication from F. Frson Almquist, of Stoekholm.——12,751.—September 24, 1884.—W. J. Hanson, of Halifax, Yorkshire.——12,775.—September 25, 1884.—G. Wicks, of Ayton, Berwieksbire.——12,860.—September 27, 1884.—A. Morris, of Walton-on-the-Hill, Lancashire.——12,878.—September 27, 1884. —C. Kilmister, of Brighton.——12,925.—September 29, 1884.—P. Fagan, H. Bagnall, and S. Skerritt, of Sheffield.

Sulphide of Zinc.—13,045.—October 1.—J. H. Johnson.—A communication from T. Macfarlane, of Canada. Improvements in the manufacture of sulphide of zinc, and the obtainment of sulpherret hydrogen and sulphurous acid as products of the said manufacture.

Sulphuric Acid.—12,410.—September 15, 1884.—T. W. B. Mumford and R. Moodie, of Lincoln's-inn Fields, London. Improvements in apparatus for the concentration of sulphuric acid, or for analegous purposes.

Surgical Instrument.—12,510.—September 17, 1884.—J. W. Cousins, of Southsea, Hampshire. A new or improved self-adjusting instrument for depressing the tongue for surgical purposes.

Taking Casts of Teeth and Gums.—12,879.—September 27, 1884.—W. R. Wheelock, of the Strand, London. Improvements in apparatus for taking impressions or casts of teeth and gums.

Tanks for Oil, &c.—12,224.—September 10, 1884.—W. Walker, of Liverpool. Improvements in tanks or cans for containing or storing oil or other liquids.

Toilet and Medicinal Mixture.—12,697.—September 23, 1884.—F. Oppenheim.—A communication from E. Dantrevaux, of Paris. An unctuous, siccative, and emollient mixture for toilet and medicinal purposes.

Tooth-tincture.—12,926.—September 29, 1884.—S. Goldman, of Dresden. An improved process for the manufacture of a tooth-tincture, or tooth-wash, for effectually curing toothache.

Treating Oils, &c.—12,681.—September 22, 1884.—C. E. Bell, of Southampton Buildings, London. Improvements in the treatment of oils and tars obtained from blast-furnaces and gas-producers, for the production of valuable hydrocarbons therefrom.

Treating Petroleum.—12,457.—September 16, 1884.—L. A. Groth.—A communication from T. N. Flesch, of Annweiler. Improvements in the treatment of petroleum.

Vent-pegs.—12,947.—September 29, 1884.—J. West, of High Street, Poplar, London. Improved vent-pegs, by constructing them as air-filters and purifiers.

Withdrawing Contents of Bottles.—12,493.—September 17, 1884.—W. Stott, of Quality Court, London. Improvements in apparatus for facilitating the withdrawal of the contents of internally-stoppered aërated water and other bottles.

Withdrawing Liquids.—12,536.—September 18, 1884.—J. Steen, of Queen Square, Wolverhampton. Improvements in apparatus for withdrawing liquids from casks and other similar vessels.

Wrapping-up Colour.—12,636.—September 22, 1884.—W. Edge, of Quality Court, London. A new or improved method of wrapping or parcelling-up soluble or insoluble blue or other colour.

Specifications published during the month:—

Postage 1*d.* each extra.

1883.

5802. L. Q. and A. Brin. Manufacture of ammonia, &c. 6*d.*

1884.

623. J. J. Kennedy. Pad for corns, &c. 2*d.*
2,845. J. E. Walton. Corkscrew. 6*d.*
4,243. H. G. Hellier. Stoppers for cans and bottles. 6*d.*
5,573. C. B. Harness. Electrical suspensors. 6*d.*
7,414. A. Watson. Lock-up stands for spirit-bottles, &c. 6*d.*
7,665. W. Anderson. Purification of water, &c. 6*d.*
7,831. W. Oldham. Filters. 6*d.*
7,953. H. E. Newton. Vent-faucets for bottles. 6*d.*
8,498. J. W. Pindar. Coating pills. 6*d.*
9,369. C. B. Harness. Electric belts, &c. 4*d.*
10,176. F. Walker. Measuring liquids. 6*d.*
10,437. L. A. Groth. Mixing fluid carbonic acid with beer, &c. 4*d.*
10,500. C. B. Harness. Facilitating the inhalation of medicated vapour. 6*d.*
10,648. J. C. Stephenson. Material for deodorising purposes, &c. 2*d.*
10,961. A. M. Clark. Manufacture of gelatine capsules. 6*d.*



PARTNERSHIPS DISSOLVED.

CAVELL & TOWNSEND, Long Sutton, chemists and druggists and wine and spirit merchants. September 3. (John Cavell and Joseph Edward Townsend.) Debts by Townsend.

CODD & RYLANDS, Hope Glass-works, Stairfoot, near Barnsley, glass-bottle makers. October 6. (Hiram Codd and Dan Rylands.) Debts by Rylands.

EDMONDS, GEORGE, & EDWIN EDMONDS, High Street, Deritend, Birmingham, mineral-water manufacturers. September 15. Debts paid by G. Edmonds, 60 Tenby Street North, Birmingham.

MARTIN & LIPMAN, College Street, Homerton, glass-bottle manufacturers. September 1. (W. Martin and Henry Lipman.)

MORET, VENNING & ALLEN, Phœnix Chemical-works, Poplar, for the manufacture, preparing, and selling of certain patent articles called "The Inoffensive." As regards Venning, September 29. (Jules Louis Moret, Henry William Jeans Venning, and John Allen.) Debts by remaining partners.

COMPANIES WOUND UP.

ALUM AND AMMONIA COMPANY (LIMITED). September 15. Liquidators—the Directors of the Company. Voluntary.

PACKHAM & CO. (LIMITED). Official Liquidator — Howard Forester Knight, accountant, Devonshire Chambers, Bishopsgate Street Without. By order.

ADJUDICATIONS.

BINKO, HENRY BOCK, 12 Roscoe Street, Bunhill Row, Finsbury, chemical manufacturer, trading as Binko & Co. September 30. Solicitor—F. A. Foster, 24 Leadenhall Buildings. High Court of Justice.

JEFFERIES, WALTER, High Church Street, New Basford, Nottingham, mineral-water manufacturer. September 12. Court—Nottingham.

JONES, HUGH ELLIS, 91 High Street, Swansea, chemist and druggist. October 7. Court—Swansea.

DIVIDENDS.

JEFFERYS, JOHN COMPTON WEEKS, 14 Tottenham Court Road, optician, trading as A. Jefferys & Co. First div. 3*s.* any day except Saturday, between 11 and 3, at office of Chief Off. Receiver, 33 Carey Street, Lincoln's Inn.

MORRIS, JOHN THOMAS GIBSON, 100 High Street, Brentford, chemist. First and final div. 8*s.* 10*d.* on October 13, at office of A. H. Stoneham, Off. Receiver, 28 and 29 St. Swithin's Lane.

PICKUP, JAMES, Waterfoot, and JOHN HENRY PICKUP, Bacup, drysalters, trading as James Pickup & Son, at Waterfoot. First and final joint div. 1*s.* 9*d.*; sep. of J. Pickup, 20*s.*; sep. of J. H. Pickup, 20*s.* on October 6 and 7, at Off. Receiver's offices, Priory Chambers, Oldham.

REID, ALEXANDER, SEN., REID, ALEXANDER, JUN., and REID, THOMAS, Victoria Street, Radcliffe, chemical manufacturers, trading at the Irwell Chemical-works, Irwell Street, Radcliffe. First and final div. 1*s.* 4½*d.* on September 22, or any day except Saturday, from 10 to 4, at T. H. Winder, Off. Receiver, 16 Wood Street, Bolton.

ORDERS OF DISCHARGE.

MORRIS, JOHN THOMAS GIBSON, 100 High Street, Brentford, chemist Granted.

WESTBURY, ROBERT, 26 Old Millgate, Manchester, residing at 2 Alexandra Villa, Mayfield Road, Whalley Range, surgical instrument maker and machinist.

RECEIVING ORDER.

TREBLE, GEORGE, 50 and 52 Whitmore Road, Hoxton, and 48 De Beauvoir Road, Kingsland, shop-fitter and show-case maker, trading as George Treble & Son. October 8. Exam. November 18 at 11, at 34 Lincoln's-Inn Fields. High Court of Justice.

Trade Report.

THE total value of the imports into the United Kingdom in September, 1884, amounted to 32,249,598*l.*; in September, 1883, the value was 32,307,465*l.* The exports for the respective months even more closely coincided. They amounted, in September, 1884, to 20,505,945*l.*; in September, 1883, to 20,495,494*l.* The figures have, perhaps, never shown less variation. Subjoined are other details:—

Imports.

	Sept., 1882	Sept., 1883	Sept., 1884
Quicksilver .. .. .. lbs.	45 000	41 250	37,500
,, ... value £	3.600	2 724	2,727
Alkali .. .. cwt.	4 906	5,460	8.372
,, ... value £	6,325	7 527	6.805
Cochineal .. .. .. cwt.	2.260	1.659	1 049
,, ... value £	21,703	13,763	5,618
Dyes (coal-tar)—			
Aniline .. .. . value £	36,060	38,007	18 860
Alizarine .. .. .. ,,			27,194
Other coal-tar dyes .. ,,			264
Bark, Peruvian .. .. cwt.	11.296	7.042	9 848
,, ... value £	153.874	92.757	73,351
Gum arabic .. .. .. cwt.	9.105	7.884	2.686
,, ... value £	18 097	16,221	9.719
Drugs, unenumerated .. ,,	63,606	118,507	51,008

Exports.

	Sept., 1882	Sept., 1883	Sept., 1884
Alkali .. .. value £	189,869	195,595	232,889
Bleaching materials or preparations .. .. .. ,,	27,450	43,130	58,957
Medicines (comprising drugs and medicinal preparations) .. .. .. ,,	76.014	77,311	77.820
Other articles .. .. ,,	204,802	169,995	177,527
Total value of chemicals and chemical and medicinal preparations .. .. ,,	694.126	704.336	709,505
Bark, Peruvian .. .. cwt.	14.542	4.054	9.196
,, ,, ... value £	183,874	27,511	51,971

MINCING LANE, October 13.

IT is very pleasing to be able to report a somewhat better feeling in our markets, with increasing inquiry, which, together with several other hopeful signs, makes the outlook of a more sanguine character than has been the case for some considerable time.

Thus the exports for last month show an improvement not only in value, but more so in quantity, and fifteen out of every twenty of our home articles may be said to show an increase in the quantity shipped.

The Bank rate, which had remained at 2 per cent. since June 19, was raised to 3 per cent. last Thursday, showing that at last more use has been found for money.

As the cholera is now happily abating in many parts, causing a relaxation of quarantine regulations, trade with Southern Europe is beginning to be resumed.

With our neighbours in Mark Lane, where the depression of late has been very severe, there is also now more animation; for although prices of corn and flour remain remarkably low, business is again being transacted on a more extensive scale than it has been for some time past; in fact, speaking generally, depression seems to be gradually giving place to returning confidence, an operation which will require much time in being accomplished, however; but, perhaps, the slower the process, the more permanent will be the results.

We believe the generally firmer action of the Government both in Egypt and South Africa is greatly helping to restore trade, and the prompt shipment of several hundred tons of war material to the China stations during the last day or two is a proof that there also, during the Franco-Chinese difficulties, British interests will be jealously protected.

No public quinine sales have taken place since our last report, but we have had a sale of 5,000 oz. sulphate of quinidine, and are promised a further one of 10,000 oz. in a few days by Messrs. Donald Gray & Sons; and, moreover, in a sale advertised by Messrs. Jenkin & Phillips for the same day (next Thursday), there is quite a variety of bark products in the form of sulphate of cinchonine, cinchonine alkaloids, and amorphous sulphate of quinine; in fact, it would hardly surprise us to see quinine wine and pills put up for public sale eventually.

The sale referred to formed the principal item of interest in the last drug sales, held on the 2nd inst., where the tone was generally very quiet, no article succeeding in provoking any animated bidding, and this has been the case in several sales of late.

ACIDS.—Citric has slowly improved in price, and now 1*s.* 5½*d.* per lb. is asked, although the business passing is, to say the least of it, but small. Tartaric enjoys quite a different position; a healthy tone pervades the article, and with a good steady demand prices have risen to 1*s.* 8*d.* per lb. English make, and 1*s.* 7*d.* per lb. foreign. Oxalic keeps very dull at 6*d.* per lb.

ALOES.—East India Socotrine are in good demand at 7*l.* 5*s.* to 8*l.* 5*s.* per cwt.; Cape, out of 163 cases offered in last sales, 75 sold at 42*s.* 6*d.* to 46*s.* per cwt.; and of 85 boxes Curacoa, 75 sold at 3*l.* 15*s.* to 4*l.* 15*s.* for fair to good quality, and 1*l.* to 1*l.* 15*s.* per cwt. for low.

ALUM.—The home trade demand has greatly increased, but prices have not altered from 5*l.* 17*s.* 6*d.* lump, and 6*l.* 5*s.* ground, in bags per ton. Export inquiry is not so brisk.

AMMONIA.—Price of sulphate gray 24 per cent. has receded to 15*l.* per ton, and carbonate remains at 5*d.* to 5¼*d.* per lb., with but very little trade.

ANTIMONY is in a depressed state at 21*l.* to 22*l.* per ton crude, stocks here continuing large. Regulus 42*l.* to 44*l.* per ton.

ARSENIC is in improved demand, and prices are very firm at 12*s.* 6*d.* to 12*s.* 9*d.* per cwt for powdered white landed.

BALSAMS.—*Tolu* quiet at 1*s.* 9*d.* to 1*s.* 10*d.* per lb.; *Peru* easier at 7*s.* 9*d.* to 8*s.* per lb. In last sales some dark *Capivi* sold at 1*s.* 8*d.* per lb.

BARK.—Values of Cinchona qualities have not varied sensibly since date of our last report, and the sales on September 23 and October 7 possessed no features of especial interest, except that the latter one was the smallest as yet of the year. Of about 500 packages Cuprea offered only 80 found buyers; but of 1,000 packages Ceylon 800 sold at fair rates, the best qualities making full prices, but inferior sorts showing rather a decline. Since the sales 150 bales Cuprea are reported to have changed hands. Ceylon shipments continue large, while, according to advices from South America, unless values improve here we are likely to receive less and less from that source, the reason being quite plain. In South America it is the prospect of a profit which induces the business, for, as the bark there grows wild in the forests, unless European values show grounds for expecting a margin on the cost of labour to gather, hides for packing, canoe and river transit, and other charges, and, moreover, a reasonable profit for the merchant, the bark will be left where it is; but with the cultivated estates of Ceylon it is entirely different. These are investments, and must show a return of some sort, good or bad. In America the money brings forward the bark; in Ceylon the bark has to produce the money, although of late we fear not in lucrative quantities. The South American bark here now is mostly old, and the prices realised recently by it do not in some instances cover the cost of its transit by river down to the port of shipment.

BLEACHING POWDER has continued to go back in value, and price is now 8*l.* 15*s.* per ton ex warehouse, and at the reduction there is very little trade doing.

BORAX remains unchanged at 40*s.* to 42*s.* per cwt.; moderate business.

CALUMBA ROOT, at lower prices, has met with more business of late. A fair quantity of dull sold at 23*s.* per cwt.

CAMPHOR.—Raw, at slightly easier rates, meets with good business; 100 tubs Japan lately sold at 53*s.* to 54*s.* per cwt.; refined English bells, 11½*d.* per lb.; foreign, 10*d.* to 10½*d.*

CAMOMILES.—Business continues steady at low prices of 35*s.* to 40*s.* per cwt. for good white flowers, and the low figures ruling this season for best cause the cheaper qualities to be entirely disregarded.

CANTHARIDES.—Business has been done in fair Russian flies at 6*s.* 8*d.* per lb., and there is very little offering.

CARBOLIC ACID has found more inquiry of late, although without influencing prices.

CARDAMOMS.—Prices are generally without alteration, and business is restricted.

CASSIA LIGNEA has experienced more business of late, but is now quieter. In recent public sale of 631 boxes 240 sold at 28*s.* 6*d.* to 29*s.* per cwt., and of 217 boxes broken 90 sold at 27*s.*

CASTOR OIL.—Moderate business; prices unchanged.

CLOVES, being offered more sparingly in public sales, are a little firmer at 5¼*d.* to 5⅝*d.* per lb. for fair Zanzibar quality.

CHIRETTA rarely meets with business of late; nominal price 4½*d.* per lb.

COCHINEAL.—Prices are unchanged, but the market during the last few days has assumed a quieter toue, although considerable business has taken place since date of our last report.

COD-LIVER OIL fails to show any improvement; 22 casks Norwegian offered in last sales were bought iu at 4*s.* 6*d.* to 6*s.* 3*d.* per gallon.

CREAM OF TARTAR is in good demand at advanced prices, and 131*s.* per cwt. is now asked for "firsts." There is said to be a great scarcity of the raw material.

CUBEBS have met with more business of late at 10*l.* per cwt. for fair quality.

ERGOT OF RYE is slightly easier; Spanish, 9½*d.*; Russian, 6½*d.* to 7*d.* per lb., with very little demand.

ESSENCE OF LEMON is steady at the low prices, 4*s.* to 5*s.* per lb. being paid for good qualities, and the market becomes somewhat strengthened as the present extraordinary difficulties of import are better understood.

GALLS.—A small business in China galls at 54*s.* to 55*s.* per cwt.

GENTIAN ROOT in poor demand at 25*s.* per cwt.

GINGER has experienced good business iu all qualities, and prices have advanced all round from 10 to 20 per cent., but especially in Jamaica sorts.

GUM ARABIC.—Turkey sorts meet with very restricted business, and out of 65 bales offered in last sales only 5 sold at 89*s.* per cwt.; but about 35 tons brown Barbary are said to have changed hands lately at from 52*s.* 6*d.* to 58*s.* per cwt.

GLYCERINE continues very steady at the low prices of 50*s.* to 55*s.* per cwt. for 1,260 chemically pure, and the market shows a tendency towards higher figures.

HONEY.—French, Jamaica, and Chilian sorts of good quality are in the market at low prices.

IODINE remains in limited demand: good dry, at 4*d.* per oz., but resublimed is quoted 5*d.* per oz.

IPECACUANHA.—Only a moderate business at slightly improved prices of 2*s.* 5*d.* to 3*s.* 9*d.* per lb.

ISINGLASS.—The last sales were held on September 23, when the total quantity of East Indian offered amounted to no more than 400 packages, being much less than usual. The chief feature was the active competition for Penang purse, which realised the extreme prices of 2*s.* 1*d.* and 2*s.* 2*d.* per lb. for good to fine pale, an advance of fully 4*d.* per lb.; and ordinary to medium kinds also sold well at about 2*d.* per lb. advance. Several other qualities showed improvement, and nearly half the quantity offered found buyers as follows:—*Penang.*—Of 174 cases about 80 sold: Leaf, fair to good stout pale, 3*s.* 10*d.* to 4*s.*; middling, 3*s.* 1*d.* to 3*s.* 4*d.*; inferior, 2*s.* 1*d.* to 2*s.* 8*d.*; very low, 1*s.* 1*d.* to 1*s.* 7*d.* per lb. Purse, good fine, 2*s.* 1*d.* to 2*s.* 2*d.*; middling to good, 1*s.* 5*d.* to 2*s.*; low to ordinary pickings, 7½*d.* to 1*s.* 1*d.* per lb. Tongue, stout middling pale, 2*s.* 11*d.*; ordinary, 2*s.* 8½*d.*; low rough and dark, 1*s.* 5*d.* to 2*s.* 4*d.* per lb. *Bombay.*—Of 145 cases about 50 sold: Purse, fine and yellowish pale, 1*s.* 10*d.*; middling to good, 1*s.* 4*d.* to 1*s.* 7*d.*; low to rough ordinary, 6½*d.* to 1*s.* per lb. Pipe, fine pale, 3*s.* 10*d.*; middling, 2*s.* 9*d.* per lb. *Kurrachee.*—Leaf, pale and reddish, 2*s.* 3*d.* per lb. *Saigon.*—Of 81 cases about 15 sold. Leaf, stout yellowish, 3*s.* 5*d.* to 3*s.* 6*d.* Tongue, coarse to fair bold, 2*s.* 3*d.* to 2*s.* 4*d.* per lb. Immediately after the sales several several lots changed hands privately. Next sales, October 28.

JALAP.—In last public sales 71 bales Vera Cruz were offered at 7½*d.* to 9*d.* per lb., but failed to find any buyers.

LEMON JUICE is firmer at 19*l.* 10*s.* per pipe f.o.b. Messina, although we do not hear of much actual business yet.

MENTHOL CRYSTALS continue to make high prices of about 45*s.* per lb.

MORPHIA SALTS remain in very poor demand; prices, however, are unchanged at 6*s.* to 6*s.* 3*d.* per oz.

OPIUM, owing to lack of demand, is somewhat easier, and prices for all qualities, manufacturing and shipping, may be said to now range from 11*s.* to 17*s.* per lb.

OILS.—*Aniseed* is a little easier at 6*s.* 10*d.* to 6*s.* 11*d.* per lb. unworked. Cassia continues quiet at 3*s.* 9*d.* per lb. *Peppermint.*—American, H. G. Hotchkiss', is in a most unsettled state, and certain lots appear to have been placed upon this market lately for sale at very elastic limits; thus, since our last report, when price was 15*s.* 6*d.* per lb., it has given way by falls of 3*d.*, until now the price is quoted 14*s.*, with a probability of further reductions.

OTTO OF ROSES.—The effect of reduced prices, combined with the announcement of a lesser yield this season, has probably been the cause of considerable business having recently taken place, principally in the better qualities, and a good inquiry still continues.

PETROLEUM OIL.—Prices have receded somewhat, and business is but limited at following quotations, *i.e.*, spot, 6⅜*d.* to 6½*d.*; November to December, 6½*d.* to 6 9-16*d.*; and January to March, 6⅝*d.* to 6 11-16*d.* per gallon.

PETROLEUM SPIRIT is firm at, common, 7*d.* to 7½*d.*; refined, 7¾*d.* to 8*d.* per gallon.

POTASH.—Chlorate has become dull at last prices of 5⅝*d.* to 5¾*d.* per lb. Bichromate continues to be offered, but only iu limited quantities at 3½*d.* per lb. Prussiate in poor demand, prices unchanged.

POTASSIUM.—Iodide continues in moderate demand at 5*s.* 4*d.* to 5*s.* 6*d.* per lb. Bromide higher at 1*s.* 5*d.* to 1*s.* 6*d.* per lb.

QUASSIA WOOD quite neglected.

QUICKSILVER is quiet; 5*l.* 12*s.* per bottle is now asked by importers, but in second hands it is obtainable at less.

QUININE continues in very poor demand, with perhaps a little more inquiry during the last few days. On October 1 Howard's price was reduced to 4*s.* 6*d.* per oz. in 1-oz. vials. French, German, and Italian makes in tins are worth 3*s.* 8*d.* to 3*s.* 10*d.* per oz., or as nearly as possible half the value of this time last year. 5,000 oz. sulphate of quinidine were sold in last drug sales at the low prices of 1*s.* 0½*d.* to 1*s.* 3½*d.* per oz., and 10,000 oz. more are now announced for sale next Thursday, besides, as already mentioned, quantities of sulphate of cinchonine, cinchonine alkaloid, and amorphous sulphate of quinine.

RHUBARB continues to meet with good demand. In last sales, out of 137 chests offered 50 sold; various qualities at slightly easier rates.

SAFFRON.—Finest Valentia qualities are somewhat lower, and are now quoted 36*s.* to 39*s.* 6*d.*, although second sorts remain firm at 33*s.* to 35*s.* per lb., stocks being limited. Alicante qualities in good demand for shipment at 23*s.* to 28*s.* per lb.

SAL AMMONIAC is steady at 42*s.* for "firsts," 40*s.* per cwt. "seconds," but business continues of only a limited character.

SALTPETRE.—Very little business doing at last prices, *i.e.*, barrels 22*s.* 3*d.*, kegs 23*s.* 3*d.* per cwt.

SARSAPARILLA.—Good Honduras qualities are lower at 1*s.* 7*d.* to 1*s.* 9*d.* per lb., but 60 serons ordinary mixed lately sold at 8¾*d.* to 9¾*d.* per lb.

SODA.—Crystals have further declined to 3*l.* 2*s.* per ton ex ship, but during the last few days there is a much firmer tendency. Ash is slow of sale at 1½*d.* per degree landed, and bicarbonate meets with only a retail demand at 7*l.* 15*s.* to 8*l.* per ton ex warehouse. Caustic is steady at 8*l.* 15*s.* to 9*l.* per ton for cream, and 9*l.* to 9*l.* 5*s.* per ton for 60 per cent. white.

SOY.—China in good demand, with sales at 1*s.* 6*d.* per gallon.

SULPHATE OF COPPER, at slightly reduced prices of 22*l.* 5*s.* to 22*l.* 10*s.* per ton, meets with a very good demand.

SULPHUR.—Rolls 8*s.* 9*d.* to 10*s.* per cwt., flowers 10*s.* 6*d.* to 12*s.* per cwt., with only a limited business.

TURPENTINE, after having been in better demand, is now quiet at lower prices. American spirit, spot, 22*s.* 6*d.* to 22*s.* 9*d.*; October to December 23*s.*, and January to April 23*s.* 6*d.* per cwt.

VANILLOES are quiet at lower prices of 10*s.* to 21*s.* per lb. In last public sales out of 37 tins offered only 5 found buyers.

(FROM OUR AMERICAN CORRESPONDENT.)

NEW YORK, October 1.

The situation of the drug market has developed no new or important feature during the past month, the movement continuing quiet and, in the main, unsatisfactory, both with regard to the volume of home distribution and operations on export account. One view of the situation is, that although the money value of the sales are less, and purchases are made in smaller quantities but more frequently, the outcome at the end of 1884 will be that the sum total of trade will considerably improve on former years.

The following are the rates ruling for the principal export articles; the prices quoted in sterling in parentheses are the London equivalents of the rates prevailing here, all market deductions, discounts, &c., being taken into account:—

BEESWAX is dearer, and meets with a brisk demand at 33c. (8*l.*) for prime yellow.

CAMPHOR continues to be offered very low, and is worth the attention of large buyers at your side. Refined, in ton lots, can be bought at 16½c. (8¾*d.*).

BROMIDE POTASSIUM is cheaper, owing to competition between makers, who say they can get nothing out of it at present figures; 28c. (1*s.* 3*d.*, 5 per cent.) is the price for best makes.

BALSAMS.—*Copaiba* is easier, Angostura being sold from first hands at 36c. (1*s.* 7½*d.*); Para meets with no demand at 40c. (1*s.* 9½*d.*); Maranham is wanting here at present. *Canada* is in short supply, and prices tend upwards; $2.80 per American gallon (1*s.* 7*d.*) is the ruling price. Tolu is dearer, and is now firmly held for 40c. (1*s.* 9½*d.*), in anticipation of the winter demand. PERU has been quite neglected.

SPERMACETI is still quoted 22c. lb. (11½*d.*).

CALIFORNIAN HONEY is just beginning to arrive, but the prime is mostly bought up for home consumption. The price of fair quality in good kegs is 10½c. (51*s.* 6*d.* cwt.).

OIL PEPPERMINT has again disappointed those speculators who have been holding their stocks of H. G. Hotchkiss' for years, who, seeing the gradual but steady advance going on during the summer and early autumn months, were in hopes that their wishes would be realised, and before long 20*s.* would be the ruling price. Their expectations have been frustrated by the persistent offering of oil by the "bear" party on the market here, who, knowing that the demand is over for the present, quote all sorts of prices, their object being to depress the market till they can secure the new crop at low figures. In order to meet the drop to 13*s.* 6*d.* on the London market, H. G. H. oil has been offered here for forward delivery at $2.75, but only in small lots, and not with the object of making sales. It is a fact that the yield will not be more than last year, and falls much below an average; private letters from Wayne and Michigan agree on this point, while the farmers are mostly holding their oil at $2.50 in bulk, and, in spite of the efforts of the "bears," are not likely to let it go much lower. This price will not admit of bottled oil being sold at a profit at $2.75 f.o.b here, so that holders who made their purchases at the advanced prices lately ruling will do well to carry their stocks till next spring (if a reaction does not set in before), and those who have light supplies cannot do better than avail themselves of the present depression to lay in stock enough to put them over next summer.

COD-LIVER OIL is not meeting with any demand; $1.10 (5*s.* 3*d.*) is the nominal price for prime pale Newfoundland.

TONCA BEANS are very dull, prime frosted Angostura are quoted $1.75 (7*s.* 6*d.*). Para are selling from 20c. (10½*d.*) to 40c. (1*s.* 9½*d.*) according to quality.

OIL OF SASSAFRAS continues in very short supply; the price at the moment is 52c. (2*s.* 3*d.*), but any demand for export would send the price up. The distilleries will not begin to operate before December.

OIL OF WINTERGREEN is meeting with little attention at the present low price of $1.90 (8*s.* 2*d.*).

OIL OF SPEARMINT is very scarce and dear; what little was made this year has already been bought up; $4.50 is the value now (19*s.* 3*d.*).

ROOTS.—*Mexican Sarsaparilla* has arrived here in quantity from Truxpan, but is mostly damaged, grey, and mouldy, and will not readily meet with buyers at 8c. (4½*d.*), the price asked. Most probably it will find its way to Europe. Honduras sarsaparilla has arrived more freely, the total stock on spot and "to arrive" being 262 bales, varying in price, according to brand, from 36c. to 50c. (1*s.* 8*d.* to 2*s.* 2*d.*). *Senega* roots are arriving from the North-west in better condition this year, and are being shipped at 48c. (2*s.* 2*d.*) for good, and 50c. (2*s.* 3*d.*) for selected clean Western. The first of the crop that comes forward is generally the best. *Jalap* is dearer here than in London; the price for prime heavy is 15c. (8½*d.*). Stock here is small, and none reported on the way. *Serpentaria* is very scarce indeed, and is not to be had in any quantity on our market, while reports from the South state there are no stocks on hand, and the collecting season is over. A Western house, which evidently was wide awake, is feeding the market at gradually rising prices; to-day 40c. (1*s.* 10*d.*) is asked, but if the demand increased the price would soon be 45c., or, perhaps, 50c. The quantity held cannot in any case be large.

ITEMS FROM GEHE & CO.'S REPORT.

Messrs. GEHE & Co., of Dresden, report a regular and steady trade during the last few months; the only two important events calling for special remark being the increased demand for cholera remedies, disinfectants, &c., and the great crash in the quinine market.

As novelties on the German market, most of which can no longer be considered such in this country, cortex cascaræ sagradæ, cort. hamamelis and hazeline, cort. rad. gossypii, herba adonidis vernalis, and rad. hydrastis canadensis are mentioned.

COTO BARK.—To distinguish the true bark from the inferior Para bark, no physical characters are available. It is only possible by the reactions given by the glucosides extracted from the two barks to determine their source. Cotoin melts at 124° C., and is turned blood red by nitric acid, while the melting-point of Para cotoin is 152° C., and a yellow colour is produced by nitric acid.

JEQUIRITY SEEDS.—A caution emanating from Dr. Vossius, who finds their action decidedly injurious to the eyesight, has caused a decline of their use in ophthalmic practice.

KEPHYR, a Caucasian fungus, yields, by infusing about 6 drachms with 4 lbs. of new milk, a koumis-like drink, called by the natives "Airan." Several roubles per oz. is the present price.

PERU BALSAM.—The petroleum ether and nitric acid test given by the German Pharmacopœia has been very generally abandoned as unreliable. 18,966 lbs. were imported into Germany from October 1, 1882, to September 30, 1883.

BISMUTH.—No Australian ores have as yet been received, and the Saxon producers have not, therefore, conceded any reductions.

CAMPHOR.—The compressed tablets do not appear to make their way very rapidly on the Continent.

CETACEUM is reported to be largely consumed by makers of Swedish matches.

CINCHONAS.—As a curiosity it is mentioned that some surplus ledgeriana seed, sold by auction at Bandong, fetched as much as 40*s.* per gramme.

QUILLAIA commands a ready sale and increased prices.

CAMOMILE FLOWERS are fine and cheap, both in Belgium and Germany.

DALMATIAN INSECT-POWDER FLOWERS.—Of last year's crop 741,000 kilos. were brought upon the market, of which at the end of July 87,000 remained on hand. This year's yield not having turned out satisfactory, a rise may be looked for.

TJEN-TJAN.—This vegetable gelatine is very scarce in Japan. It has proved more suitable for the cultivation of bacteria than animal gelatine.

FOLIA.—Hyosciami, aconiti, conii, and daturæ: the crops are abundant and of good quality; quotations low.

QUICKSILVER.—Some statistics estimate the annual consumption throughout the world at 78,000 bottles, and the quantity obtained from the Californian mines from 1850 to 1883 is stated to have been 1,357,403 bottles; the European mines during the same period had an output of 1,316,973 bottles. Out of twenty-seven Californian mines only five are now worked.

MUSK.—The musk reaching Europe by way of China is always of a superior quality to that obtained by way of Russia. Some American musk from the musk rat is of a rather fine quality. A musk suitable for perfumery has been imported at Bremen from the Missisippi. It is derived from the alligator, the pods are very small, and the smell slightly varies from that of true musk, somewhat resembling civet.

OL. EUCALYPTI.—This oil is now distilled in Germany, and preferred to that imported from Australia. The Australian Amygdalina quality is scarce, and the Dumosa is no longer being produced.

RAD. VALERIAN.—The stock of this root is getting low, but it is hoped the favourable season will bring a good supply shortly.

SACCHAR. LACTIS.—Owing to the poorness of the Swiss milk in saccharine matter, the prices are rather higher. Small quantities produced in Germany have not influeneed the quotations.

ERGOTA.—It is expected that a small quantity only will be collected this year.

ANISEED.—Of last year's Russian seed but little remains now on hand. A good crop is confidently expected.

SEM. SANTONICÆ is offered at prices scarcely covering the cost of transport from the Steppes.

FLUID CARBONIC ACID.—The consumption of the fluid acid by mineral-water makers is still inconsiderable, owing principally to the high prices charged for the cylindrical iron vessels it is sent out in, and some difficulty that has arisen as to shipment. The iron vessels are periodically tested by Government.

GALLIC ACID.—A sample has come under notice lately containing 50 per cent. of alumina sulphate.

OXALIC ACID of English manufacture is almost entirely excluded from the German market, the quantity produced in Germany being not only sufficient to supply the inland demand but to leave some for exportation.

SALICYLIC ACID.—The holders of Kolbe's patent have acquired a new patent by which the same amount of acid is obtained from half the quantity of raw material.

AGARICINE has been recommended in cases of night sweats. Dr. Fiedler, however, has found atropine more reliable.

ALUMINIUM.—The powdered metal has been in demand recently for internal exhibition.

ANTIPYRINE.—Dr. Knorr has prepared this artificial alkaloid, which has commenced to supersede kaïrine. It possesses a less objectionable taste, and is said to be more efficacious. Doses of 2 grammes are given hourly. Capsules containing antipyrine and kaïrine have been made.

ATROPINE.—Dr. E. Schmidt proposes, since he, in conjunction with Ladenburg, has demonstrated the identity of atropine and daturine, to call the former "Belladonna-" and the latter "Datura-Atropine."

AZOLITMIN, the pure colouring-matter of litmus, is recommended for the preparation of the tincture and test-paper. For this purpose it should be dissolved in water containing soda, and oxalic acid carefully added until the desired degree of sensitiveness is reached.

BROMINE.—Dr. Frank's solid fused bromine in sticks is much liked, owing to the facility with which it can be transmitted.

CHLORIDE OF LIME.—In spite of an import duty of 3 marks per 100 kilos., the import of the English article shows an increase for the last six months.

COCAÏNE.—The alkaloid of the coca plant has been found effective in cases of sunstroke, loss of blood, diarrhœa, and exhaustion; it is also a good substitute for atropine.

CURARE.—An American physician has introduced under this name a remedy against snake-bite, hydrophobia, and malarial fever. It is prepared by the natives from various herbs.

FLUID EXTRACTS.—Some of these—notably fl. ext. cort. rad. gossypii, hydrastis canadensis, and cascaræ sagradæ—are rapidly gaining in favour.

KAÏRIN.—The demand has much decreased of late, owing to its nauseous taste.

The import of CRYSTAL AND CAUSTIC SODA of English make shows a steady decrease, while the export of ammonia soda rises rapidly.

SUGAR OF LEAD.—German manufacturers have suffered severely, owing to the Russian Government having imposed an import duty of 100 per cent. *ad valorem*. Of sixteen factories formerly producing a value of 4,500,000 marks, only six now remain, and the value of produce represents but 800,000 marks.

THYMOL.—The demand for France and Italy has almost cleared the market.

The Customs tariff of 1879, imposing heavy protective duties, does not appear to have had a beneficial effect on German chemical industry. Although much foreign produce has been kept out, manufacturers had been induced, by a hope of greatly increased demand, to largely increase their establishments, and to import raw material to an extent quite out of proportion to probable consumption. The consequence has been over-production to an alarming degree, and, in conjunction with the fact that a large number of new factories have been founded, the intended beneficial effect of exclusion of foreign competition has been more than counterbalanced.

ESSENTIAL OILS.

We quote the following from a report recently issued by Messrs. Schimmel & Co., of Leipzig:—

The production of foreign essential oils has so enormously increased that it has become impossible to dispose of the quantities thrown upon the market; and, as many of these oils will not keep, it has become necessary to clear them out at any price, and, of course, at a great loss to the producer.

OIL OF ANISE.—An oil has been met with largely adulterated with *Fennel stearopten*. The prospects for production generally are favourable.

OIL OF BAY.—This oil has gained much favour on the Continent. Since its introduction, in 1878, the quantity consumed has increased, at least, tenfold. The solution of this oil in spirit presents certain difficulties; even absolute alcohol

does not yield a clear solution. It is therefore recommended to mix at once with spirit of 50 per cent., and clear by repeated filtration.

CAJUPUT OIL.—Since the Dutch Maatschappij has no longer a monopoly, this oil has been exceedingly cheap. Most Pharmacopœias permit the green tint due to copper; the Dutch Government, however, is now supplying Java chemists with a white rectified oil proeured from Germany. In Japan the colourless oil only is now admitted.

CEDAR-WOOD OIL is mentioned as being an adulterant much used in the sophistication of cassia, citronella, santal-wood, and even peppermint oils.

CITRONELLA shows a variation in average price during the past decade from 1¼*d.*, the present price, to 6½*d.* in 1880. The perfect solubility of 1 volume of the oil in 2 or 2½ volumes of 75 per cent. spirit at 68° F. is a reliable test.

LEMON AND BERGAMOT have both reached so low a figure as to scarcely repay the outlay of producing them; 1,000 lemons produce about 1 kilo. of essential oil.

EUCALYPTUS OIL.—Two kinds are in the market. A so-called Australian oil compares with the genuine as follows:—

The Genuine Oil	*The Adulterated*
mixes with 90 per cent. spirit in all proportions; does not change colour with iodine; when treated with sodium turns yellow. Sp. gr., 0,900 to 0,925.	yields a turbid solution in even 15 parts of 90 per cent. spirit; changes colour with iodine; treated with sodium turns red. Sp. gr. 0,860 to 0,870.

OIL OF HOPS appears to be principally in demand by the makers of some of the popular bitters.

LAVENDER OIL.—The best Mitcham may, it is said, be successfully imitated by the judicious admixture with the best foreign oil of the finest French rosemary and a few drops of cajuput oil.

LIGN ALOES OIL is the base of the "Maiglockchen Perfume."

MATICO OIL is much employed in South America as a powerful styptic.

MIRBAN.—The low price of essence of mirban of English manufacture is explained by the fact that it is not what it should be, viz., nitro-benzol, but nitro-toluol. Its specific gravity, instead of 1,200, is 1,160. To the nitro-toluol is due the disagreeable smell in soap so often complained of.

MONARDA OIL.—This, the essential oil of *Monarda punctata* (horse mint), resembles in smell somewhat the oils of thyme and origanum Moderate cold causes the separation of a crystalline body, recognised by Professor Flückiger as identical with thymol. The U.S. Pharmacopœia designates this oil as an irritant indicated in chronic rheumatism.

PEPPERMINT OIL will, it is predicted, shortly become the object of attention of a New York ring. Ostensibly, the production of menthol from the American oil is the pretext for buying up stock. From experiments made it appears, however, that two methods only are available. The menthol may either be chemically fixed or separated by freezing, after fractional distillation of the oil. The American oil contains about 20 per cent. of menthol only. Eighty per cent. of peppermint oil would, by adopting the first method, be entirely lost, and the freezing process would leave the same amount of impoverished oil, which (it is difficult to believe) will find *bonâ-fide* buyers. A caution against an oil from which the menthol has been abstracted will, therefore, not be out of place.

OTTO OF ROSES.—Messrs. Schimmel have succeeded in producing about 3 kilos. of otto of a very superior quality from roses grown in the vicinity of Leipzig. From previous experiments, the possibility of producing the otto had been demonstrated, and an oil of a quality quite equal to, if not superior to, the finest Turkish has been the result of this year's work. By employing only certain species of roses, and perfecting the arrangements made this season, Messrs. Schimmel hope to in future produce larger quantities.

SANTAL-WOOD OIL.—The taste of this oil might be masked by a small addition of *Ol. cassiæ*.

OIL OF WINTERGREEN, an oil distilled from the *Betula lenta*, is very similar to the true wintergreen. From experiments made in one of the New York hospitals, it seems probable that this oil may supplant the salicylic-acid salts. Doses of from 2 to 10 drops in the twenty-four hours were most effective in cases of acute and sub-acute rheumatism.

APIOL, or parsley camphor, obtained from the essential oil of *Apium petroselinum*, has been found to strongly resemble in its action that of quinine. Fifteen-grain doses produce slight cerebral symptoms without, however, leaving any disagreeable after effects. It is also recommended in 4-grain doses in amenorrhœa. Its disagreeable taste necessitates its being administered in wafer or gelatine capsules.

CUMARIN is now much employed instead of the Tonquin bean, the active principle of which it represents. The economy effected by the use of cumarin amounts to more than a third when compared with the cost of the bean. One-and-a-half per cent. should be taken as the average contained in good-quality beans. Perfumers and tobacco manufacturers largely demand it of late.

HELENIN (crystallised helenin) is found to be a most valuable remedy in whooping-cough and chronic bronchitis.

MENTHOL.—Messrs Schimmel have secured, by their representatives in Japan, 14,000 lbs. of menthol, of which, however, owing to the uncertainty of the state of affairs in the East, they will not actually receive the first consignment until the middle of November. The producers in Japan appear to have become greatly excited by the extraordinary demand lately created, and are, naturally, making hay while the sun shines.

THYMOL.—The appearance of cholera and small-pox in France and Italy has caused the revival of a demand for thymol, which is, consequently, becoming very rare.

VANILLIN.—Vanillin appears to make steady progress in the favour of Continental consumers. From calculations made, the annual saving in using the vanillin instead of the pod amounts, for Germany alone, to about 1,800,000m. About 25 grammes vanillin represent 1 kilo. of exceptionally fine vanilla at an outlay of 20*s.*, while the vanilla would, at least, cost 50*s.* at the present rather low quotations.

FROM advertisements and notices in the *Mineral Water Trade Recorder* it appears that a fight is impending between Messrs. Thomas Turner & Co., glass-bottle manufacturers, and Messrs. Bratby & Hinchliffe, of Manchester, of the one part, and Mr. Hiram Codd of the other part. The former parties announce that the patent for Codd's bottles will expire on November 24 next, and that they will be prepared to supply such at reduced prices from that date. But it appears that the patent which will then expire was the first taken out by Mr. Codd for a self-stopping bottle, and that the bottles now made and sold as Codd's patent are made under a fourth patent, which will not expire until December, 1887.

A NEW STYLE OF WATER CURE.—About a month ago a sturdy country German went into a city drug store and stated his case to the drug clerk. He was suffering from some sort of malady, and wanted a dose to fix him all right. The young man behind the counter prepared a bottle of quinine, whisky, &c., labelled it, wrote the directions, "to be taken in water, before breakfast," and handed it to the patient, who then disappeared. Yesterday he made his appearance again, and related his experience. He said at first he stripped off, got into a tub of water, and took the medicine in that way; but as the tub was small, and water scarce, he finally walked about a mile to a creek, and, going into the water up to his neck, swallowed the medicine. He took a violent cold, and suffered considerably for a week or two, but finally the old complaint, the cold, and the medicine had all disappeared, he was as hearty as a buck, and was back to congratulate the young drug clerk on his success in treating a complicated case. The young drug clerk could scarcely restrain himself as he explained to his customer what he meant by "to be taken in water." The late patient stared, open-mouthed, when he realised the situation, and begged his friend not to mention the incident to anyone, expressing his willingness to "buy the beer" to secure his silence. The joke was too good to keep, however, and was told to the first newspaper man that came along.—*Toledo Blade.*

Monthly Price Current.

The prices quoted in the following list are those actually obtained in Mincing Lane for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.

CHEMICALS.		Last Month		This Month	
ACIDS—		s. d.	s. d.	s. d.	s. d.
Acetic	per lb.	0 2½ to	0 0	0 2½ to	0 0
pure	„	0 5 ..	0 9	0 5 ..	0 9
glacial	„	0 6 ..	1 0	0 6 ..	1 0
Benzoic Sublimate	„	0 0 ..	3 6	0 0 ..	3 6
Ex Gum.	per oz.	0 6½ ..	0 0	0 6½ ..	0 0
Citric	„	1 4½ ..	1 5	1 5½ ..	0 0
Gallic	„	3 2 ..	3 6	3 2 ..	3 6
Hydrochloric	per cwt.	4 6 ..	7 6	4 6 ..	7 6
Nitric	per lb.	0 3 ..	0 3½	0 3 ..	0 3½
Oxalic	„	0 6 ..	0 0	0 6 ..	0 0
Sulphuric	„	0 0¾ ..	0 1	0 0¾ ..	0 1
Salicylic	„	6 9 ..	9 6	6 9 ..	9 6
Tannic	„	1 4 ..	2 9	1 4 ..	2 9
Tartaric, English	„	1 7½ ..	1 7½	1 8 ..	0 0
foreign	„	1 6¼ ..	0 0	1 7 ..	0 0
ANTIMONY, crude	per cwt.	22 0 ..	0 0	22 0 ..	0 0
star	„	41 0 ..	43 0	41 0 ..	43 0
ARSENIC, lump	„	22 0 ..	24 0	22 0 ..	24 0
powder	„	12 6 ..	12 9	12 6 ..	12 9
BRIMSTONE, rough	„	8 0 ..	8 6	8 0 ..	8 6
roll	„	8 9 ..	10 0	8 9 ..	10 0
flour	„	10 0 ..	12 6	10 0 ..	12 6
GLYCERINE, German refined	„	50 0 ..	55 0	50 0 ..	55 0
crude brown	„	37 6 ..	42 6	37 6 ..	42 6
IODOFORM	per lb.	8 0 ..	8 2	8 0 ..	8 2
IODINE, dry	per oz.	0 4 ..	0 0	0 4 ..	0 0
resublimed	„	0 6 ..	0 0	0 5 ..	0 6
MAGNESIA, calcined	per lb.	0 10 ..	1 4	0 10 ..	1 4
Hwds.		5 0 ..	0 0	5 0 ..	0 0
MERCURY	per bot.	111 0 ..	0 0	110 0 ..	112 0
PRECIPITATE, red	per lb.	3 0 ..	0 0	3 0 ..	0 0
white	„	2 11 ..	0 0	2 11 ..	0 0
PRUSSIAN BLUE	„	1 8 ..	2 0	1 8 ..	2 0
SANTONINE	„	11 6 ..	0 0	11 6 ..	0 0
SALICINE	„	10 0 ..	0 0	10 0 ..	0 0
THYMOL	„	21 6 ..	0 0	35 0 ..	0 0
SALTS—					
Alum	per ton	117 6 ..	0 0	117 6 ..	0 0
powder	„	125 0 ..	0 0	125 0 ..	0 0
Ammonia:					
Carbonate	per lb.	0 5 ..	0 5½	0 5 ..	0 5½
Hydrochlorate, crude, white	per ton	600 0 ..	760 0	600 0 ..	760 0
Sulphate	„	307 6 ..	0 0	307 6 ..	0 0
Argol, Cape	per cwt.	83 0 ..	96 0	83 0 ..	96 0
Red	„	70 0 ..	90 0	70 0 ..	90 0
Oporto, red	„	38 0 ..	42 0	38 0 ..	42 0
Bleaching powder	„	9 0 ..	9 3	9 0 ..	9 3
Borax, British refined	„	40 0 ..	42 0	40 0 ..	42 0
Calomel	per lb.	2 6 ..	0 0	2 6 ..	0 0
Chloral hydrate	„	4 5 ..	4 7	4 5 ..	4 7
Liebreich's	„	5 6 ..	6 0	5 6 ..	6 0
Copper:					
Sulphate	per cwt.	23 0 ..	0 0	23 0 ..	0 0
Copperas, green	per ton	55 0 ..	0 0	55 0 ..	0 0
Corrosive Sublimate	per lb.	1 11 ..	0 0	1 11 ..	0 0
Cream Tartar, French	per cwt.	126 0 ..	126 6	131 0 ..	0 0
brown	„	112 0 ..	0 0	112 0 ..	0 0
Epsom Salts	„	4 0 ..	6 0	3 6 ..	5 0
Glauber Salts	„	4 0 ..	5 0	4 0 ..	5 0
Magnesia: Carbonate	„	40 0 ..	0 0	40 0 ..	0 0
Pond, Hwds.	„	72 0 ..	0 0	72 0 ..	0 0
Morphiæ Murias	„	6 0 ..	6 3	6 0 ..	6 3
Phosphorus	per lb.	2 3 ..	2 4	2 3 ..	2 4
Potash:					
Bichromate	„	0 3½ ..	0 0	0 3½ ..	0 0
Carbonate:					
Potashes, Canada, 1st sort	per cwt.	29 0 ..	0 0	29 0 ..	0 0
Pearlashes, Canada, 1st sort	„	46 0 ..	46 6	46 0 ..	46 6
Chlorate	per lb.	0 5½ ..	0 5⅝	0 5½ ..	0 5⅝
Prussiate	„	0 10 ..	0 10½	0 10 ..	0 10½
red	„	1 11 ..	2 0	1 11 ..	2 0
Sulphate	per cwt.	10 6 ..	11 6	10 6 ..	11 6
Potassium:					
Bromide	per lb.	1 4 ..	0 0	1 4 ..	1 6
Chloride	per cwt.	9 0 ..	0 0	9 0 ..	0 0
Iodide	per lb.	5 4 ..	5 6	5 4 ..	5 6
Quinine:					
Sulphate, British, in bottles	per oz.	4 9 ..	0 0	4 6 ..	0 0
Sulphate, French	„	4 3 ..	0 0	4 0 ..	0 0
Sulphate, German	„	3 9 ..	4 0	3 8 ..	3 9
Sal Acetos	per lb.	0 8¼ ..	0 0	0 8¼ ..	0 0
Sal Ammoniac, British	per cwt.	40 0 ..	42 0	40 0 ..	42 0
Saltpetre:					
Bengal, 6 per cent. or under	„	16 3 ..	16 6	16 3 ..	16 6
Saltpetre:—(*cont.*)					
Bengal, over 6 per cent.	per cwt.	16 0 to	0 0	16 0 to	0 0
British, refined	„	22 3 ..	23 3	22 3 ..	23 3
Soda: Bicarbonate	„	7 9 ..	8 0	7 9 ..	8 0
Hwds.	„	45 0 ..	0 0	45 0 ..	0 0
Carbonate:					
Soda Ash	per deg.	0 1½ ..	0 1¼	0 1½ ..	0 0
Soda Crystals	per cwt.	3 3 ..	0 0	3 3 ..	0 0
Caustic	„	9 3 ..	9 6	8 9 ..	9 3
Hyposulphite	„	7 9 ..	8 0	7 9 ..	8 0
Nitrate	„	11 3 ..	0 0	11 3 ..	0 0
Zinc Sulphate	„	12 0 ..	14 0	12 0 ..	14 0
SUGAR OF LEAD, White	„	30 0 ..	34 0	30 0 ..	34 0
Brown	„	26 6 ..	0 0	26 6 ..	0 0
VERDIGRIS	per lb.	0 9½ ..	1 0	0 9½ ..	1 0
VERMILION, English	„	2 3 ..	0 0	2 3 ..	0 0
China	„	2 4 ..	0 0	2 4 ..	0 0
DRUGS.					
ALOES, Hepatic	per cwt.	75 0 ..	90 0	75 0 ..	90 0
Socotrine	„	90 0 ..	140 0	145 0 ..	165 0
Cape, good	„	40 0 ..	45 0	42 6 ..	46 0
Inferior	„	25 0 ..	40 0	25 0 ..	35 0
Barbados	„	50 0 ..	130 0	50 0 ..	130 0
Curaçoa	„	40 0 ..	75 0	40 0 ..	95 0
AMBERGRIS, grey	per oz.	60 0 ..	80 0	60 0 ..	80 0
BALSAM—					
Canada	per lb.	1 10 ..	2 0	1 10 ..	2 0
Capivi	„	1 10 ..	2 0	1 9 ..	1 10
Peru	„	7 6 ..	8 0	7 6 ..	8 0
Tolu	„	1 9 ..	0 0	1 9 ..	0 0
BARKS—					
Canella alba	per cwt.	25 0 ..	27 6	25 0 ..	27 6
Cascarilla	„	40 0 ..	45 0	40 0 ..	45 0
CINCHONA—					
Peru, grey	per lb.	0 9 ..	1 8	0 9 ..	1 8
Calisaya, flat	„	0 6 ..	2 0	0 6 ..	2 0
quill	„	0 9 ..	2 6	0 9 ..	2 6
Carthagena	„	0 4 ..	1 0	0 4 ..	1 0
Columbian	„	0 6 ..	1 9	0 6 ..	1 9
Cuprea	„	0 3 ..	1 4	0 3 ..	1 4
New Granada	„	0 7 ..	2 0	0 7 ..	2 0
Pitayo & Maracaibo	„	0 4 ..	1 5	0 4 ..	1 5
Red	„	2 0 ..	9 0	2 0 ..	9 0
East India, crown	„	0 6 ..	2 0	0 6 ..	2 0
„ red	„	0 4 ..	2 3	0 4 ..	2 3
BUCHU LEAVES	„	0 2 ..	1 0	0 2 ..	1 0
CAMPHOR, China	per cwt.	55 0 ..	57 6	52 6 ..	55 0
Japan	„	57 6 ..	60 0	53 0 ..	56 0
Refin. Eng.	per lb.	0 11¼ ..	0 0	0 11½ ..	0 0
Tablets	„	1 0½ ..	0 0	0 11½ ..	0 0
CANTHARIDES, China	„	2 6 ..	3 0	2 6 ..	3 0
„ Russian	„	5 0 ..	6 0	6 6 ..	7 0
CAMOMILE FLOWERS	per cwt.	38 0 ..	40 0	38 0 ..	40 0
CASTOREUM	per lb.	26 0 ..	38 0	26 0 ..	38 0
CHIRETTA	„	0 3½ ..	0 4½	0 3½ ..	0 4½
DRAGON'S BLOOD, lp.	per cwt.	70 0 ..	240 0	70 0 ..	240 0
ERGOT OF RYE	per lb.	0 7 ..	1 0	0 6½ ..	0 10
FRUITS & SEEDS (*see also* Seeds *and* Spices)					
Anise, China Star	per cwt.	95 0 ..	100 0	95 0 ..	100 0
Russian	„	20 0 ..	30 0	20 0 ..	30 0
Beans, Tonquin	per lb.	3 0 ..	5 0	3 0 ..	5 0
Cardamoms, Malabar, good	„	6 0 ..	8 0	6 0 ..	8 0
inferior	„	3 0 ..	4 0	3 0 ..	4 0
Aleppy	„	3 0 ..	4 6	3 0 ..	4 6
Madras	„	1 6 ..	3 6	1 6 ..	3 6
Ceylon	„	2 0 ..	2 10	2 0 ..	2 10
Malabar sorts	„	4 0 ..	7 0	4 0 ..	7 0
Coeculus Indicus	per cwt.	11 0 ..	13 0	11 0 ..	13 0
Colocynth, apple	per lb.	0 10 ..	1 3	0 10 ..	1 3
Cubebs	per cwt.	200 0 ..	280 0	200 0 ..	280 0
Cummin	„	30 0 ..	34 0	30 0 ..	34 0
Fenugreek	„	10 0 ..	12 0	10 0 ..	12 0
Juniper Berries	„	8 6 ..	11 0	8 6 ..	11 0
Nux Vomica	„	7 6 ..	10 0	7 6 ..	10 0
Tamarinds, E. India	„	8 0 ..	12 0	8 0 ..	12 0
W. India	„	18 0 ..	20 0	18 0 ..	20 0
Vanilla, large	per lb.	20 0 ..	25 0	20 0 ..	25 0
inferior	„	8 0 ..	18 0	8 0 ..	18 0
FLOWERS—Dalmatian	„	60 0 ..	90 0	60 0 ..	90 0
Caucasian	„	95 0 ..	0 0	95 0 ..	0 0
HONEY, Chili	per cwt.	25 0 ..	50 0	25 0 ..	50 0
Jamaica	„	29 0 ..	44 0	26 0 ..	38 6
IPECACUANHA	per lb.	2 6 ..	3 6	2 6 ..	3 6
ISINGLASS, Brazil	„	2 0 ..	4 3	2 0 ..	4 3
Tongue sort	„	1 6 ..	4 10	1 6 ..	4 10
East India	„	1 0 ..	3 11	1 0 ..	3 11
West India	„	2 9 ..	3 10	2 9 ..	3 10
Russ. leaf	„	7 0 ..	10 0	7 0 ..	10 0
„ Simovia	„	2 2 ..	2 4	2 2 ..	2 4
JALAP, good	„	0 7 ..	0 9	0 7 ..	0 9
infer. and stems	„	0 6 ..	0 7	0 6 ..	0 7
LEMON JUICE	per deg.	0 0 ..	0 0	0 0 ..	0 0
LIME JUICE	per gall.	1 6 ..	0 0	1 6 ..	0 0
LIQUORICE, Spanish	per cwt.	55 0 ..	100 0	55 0 ..	100 0
Liquorice Root	„	12 0 ..	20 0	12 0 ..	20 0
MANNA, flaky	per lb.	4 6 ..	5 0	4 6 ..	5 0
MUSK, Tonquin pod	per oz.	66 0 ..	73 0	66 0 ..	73 0
Grain	„	45 0 ..	80 0	45 0 ..	80 0
Yunan pod	„	29 0 ..	35 0	29 0 ..	35 0
OILS (*see also separate list*)					
Almond, expressed	per lb.	1 3 ..	1 5	1 3 ..	1 5
Castor, 1st pale	„	0 3½ ..	0 3⅝	0 3½ ..	0 3⅝
second	„	0 3½ ..	0 3⅝	0 3½ ..	0 3⅝
Cod-liver	per gall.	5 9 ..	7 0	4 6 ..	6 6

		Last Month		This Month	
		s. d.	s. d.	s. d.	s. d.
Essential Oils:					
Almond	per lb.	30 0 to 0 0		30 0 to 0 0	
Anise-seed. star	"	6 6 .. 6 9		6 6 .. 6 9	
" German, &c.	"	8 0 .. 13 0		8 0 .. 13 0	
Bergamot	"	5 6 .. 6 0		5 6 .. 6 0	
Cajeput	per bot.	3 3 .. 0 0		3 3 .. 0 0	
Caraway	per lb.	5 6 .. 0 0		5 6 .. 0 0	
Cassia	"	3 8 .. 0 0		3 9 .. 0 0	
Cinnamon	per oz.	1 9 .. 2 6		1 9 .. 2 6	
Cinnamon-leaf	"	0 2⅜ .. 0 0		0 2⅜ .. 0 0	
Citronelle	"	0 1¾ .. 0 0		0 1¾ .. 0 0	
Clove	per lb.	3 3 .. 3 6		3 3 .. 3 6	
Juniper	"	1 6 .. 2 0		1 6 .. 2 0	
Lavender, Exotic	"	6 9 .. 8 6		6 9 .. 8 6	
" Mitcham	"	130 0 .. 0 0		130 0 .. 0 0	
Lemon	"	4 6 .. 6 0		4 0 .. 5 6	
Lemongrass	per oz.	0 1½ .. 0 0		0 1½ .. 0 0	
Neroli	"	7 0 .. 0 0		7 0 .. 0 0	
Nutmeg	"	0 9 .. 0 11		0 9 .. 0 11	
Orange	per lb.	12 0 .. 0 0		12 0 .. 0 0	
Otto of Roses	per oz.	17 0 .. 35 0		15 0 .. 34 0	
Patchouli	"	1 4 .. 2 0		1 4 .. 2 0	
Peppermint:					
American	per lb.	12 0 .. 0 0		12 0 .. 0 0	
(H. G. Hotchkiss)	"	15 6 .. 0 0		14 0 .. 0 0	
English	"	25 0 .. 28 0		25 0 .. 28 0	
German	"	8 0 .. 14 0		8 0 .. 14 0	
Japan	"	7 0 .. 9 0		7 0 .. 9 0	
Menthol crystals	"	45 0 .. 0 0		45 0 .. 0 0	
Rosmary	"	2 6 .. 3 9		2 6 .. 3 9	
Sassafras	"	2 6 .. 0 0		2 6 .. 0 0	
Spearmint	"	12 0 .. 14 0		12 0 .. 14 0	
Thyme	"	2 6 .. 0 0		2 6 .. 0 0	
Mace, expressed	per oz.	0 2 .. 0 0		0 2 .. 0 0	
Opium, Turkey	per lb.	15 6 .. 17 6		15 0 .. 17 0	
" inferior	"	12 0 .. 14 0		11 0 .. 13 0	
Quassia (bitter wood)	per ton	50 0 .. 60 0		50 0 .. 60 0	
Rhubarb, China, good and fine	per lb.	2 0 .. 3 6		1 6 .. 3 0	
Middling to fair	"	1 6 .. 2 0		1 1 .. 1 3	
Roots—Calumba	per cwt.	20 0 .. 25 0		22 0 .. 30 0	
China	"	20 0 .. 0 0		20 0 .. 0 0	
Cus-Cus	"	30 0 .. 21 0		30 0 .. 21 0	
Galangal	"	21 6 .. 0 0		21 6 .. 0 0	
Gentian	"	25 0 .. 27 6		25 0 .. 27 6	
Orris	"	23 0 .. 50 0		23 0 .. 50 0	
Pellitory	"	68 0 .. 80 0		68 0 .. 80 0	
Pink	per lb.	1 6 .. 0 0		1 6 .. 0 0	
Rhatany	"	0 5 .. 0 6		0 5 .. 0 6	
Seneka	"	2 4 .. 2 6		2 4 .. 2 6	
Snake	"	1 6 .. 0 0		1 6 .. 0 0	
Saffron, Valencia	"	36 0 .. 42 6		35 0 .. 40 0	
Alicante	"	25 0 .. 30 0		25 0 .. 30 0	
Sarsaparilla, Lima	"	0 6 .. 1 0		0 6 .. 1 0	
Guayaquil	"	1 2 .. 1 5		1 2 .. 1 5	
Honduras	"	1 0 .. 1 3		1 0 .. 1 3	
Jamaica	"	1 6 .. 1 10		1 6 .. 1 10	
Sassafras	per cwt.	0 0 .. 0 0		0 0 .. 0 0	
Scammony, Virgin	per lb.	32 0 .. 35 0		32 0 .. 35 0	
second and ordinary	"	15 0 .. 28 0		15 0 .. 28 0	
Senna, Bombay	"	0 2¼ .. 0 0		0 2¼ .. 0 0	
Tinnivelly	"	0 3 .. 1 2		0 3 .. 1 2	
Alexandria	"	0 9 .. 1 6		0 9 .. 1 6	
Spermaceti, refined	"	1 3 .. 0 0		1 3 .. 0 0	
American	"	0 10½ .. 0 0		0 10½ .. 0 0	
Squills	"	0 1 .. 0 2½		0 1 .. 0 2½	
GUMS.		£ s.	£ s.	£ s.	£ s.
Ammoniaci, drop	per cwt.	2 10 .. 3 6		2 10 .. 3 6	
Animi, fine washed	"	18 0 .. 20 0		18 0 .. 20 0	
sorts	"	13 0 .. 17 10		13 0 .. 17 10	
Arabic, pale picked	"	2 15 .. 3 10		2 15 .. 3 10	
sorts, mid. to fine	"	1 10 .. 2 6		1 10 .. 2 6	
Turkey, pick. gd. to fin.	"	9 0 .. 9 10		9 0 .. 9 10	
second & inferior	"	6 10 .. 8 10		6 10 .. 8 10	
sorts	"	4 5 .. 4 10		4 5 .. 4 10	
Asafœtida, cm. to fin.	"	3 0 .. 3 15		3 0 .. 3 15	
Benjamin, Siam, 1st & 2nd	"	17 0 .. 35 0		17 0 .. 35 0	
Sumatra	"	5 0 .. 11 0		5 0 .. 11 0	
		s. d.	s. d.	s. d.	s. d.
Copal, Manila	"	15 0 .. 67 0		15 0 .. 67 0	
Angola, red	"	145 0 .. 152 6		145 0 .. 152 6	
Damar, pale	"	77 6 .. 90 0		77 6 .. 90 0	
Euphorbium	"	12 6 .. 20 0		12 6 .. 20 0	
Galbanum	per lb.	0 3 .. 0 10		0 3 .. 0 10	
Gamboge, picked pipe	per cwt.	230 0 .. 300 0		230 0 .. 300 0	
Guaiacum	per lb.	0 9 .. 2 5		0 9 .. 2 5	
Kino	per cwt.	45 0 .. 0 0		45 0 .. 0 0	
Kowrie, sorts	"	45 0 .. 60 0		45 0 .. 60 0	
selected	"	115 0 .. 260 0		115 0 .. 260 0	
Mastic, picked	per lb.	1 6 .. 3 3		1 6 .. 3 3	
Myrrh, good and fine	per cwt.	100 0 .. 150 0		100 0 .. 150 0	
ordinary to fair	"	80 0 .. 140 0		80 0 .. 140 0	
Olibanum, p. drop	"	34 0 .. 39 0		34 0 .. 39 0	
amber and yellow	"	36 0 .. 0 0		36 0 .. 0 0	
Senegal	"	40 0 .. 45 0		40 0 .. 45 0	
Sandarac	"	90 0 .. 110 0		90 0 .. 110 0	
Shellac, Orange	"	65 0 .. 94 0		62 0 .. 89 0	
Liver	"	64 0 .. 67 0		61 0 .. 64 0	
Thus	"	25 0 .. 0 0		25 0 .. 0 0	
Tragacanth, leaf	"	140 0 .. 200 0		140 0 .. 200 0	
in sorts	"	20 0 .. 180 0		20 0 .. 180 0	
OILS.		£ s.	£ s.	£ s.	£ s.
Seal pale	per tun	30 ..	0 0	27 10 ..	28 10

		Last Month		This Month	
		£ s.	£ s.	£ s.	£ s.
Oils:—(*cont.*)					
Seal, yellow to tinged	per tun	27 0 to 28 0		24 0 to 27 0	
brown	"	24 0 .. 26 0		23 10 .. 24 0	
Sperm	"	58 0 .. 0 0		57 0 .. 0 0	
Cod	"	35 0 .. 0 0		32 0 .. 35 0	
Whale, South Sea, pale	"	28 0 .. 29 0		24 0 .. 26 10	
yellow	"	26 0 .. 28 0		23 0 .. 27 0	
brown	"	24 0 .. 0 0		22 0 .. 22 10	
Sardine	"	25 0 .. 27 0		25 0 .. 27 0	
Olive, Seville	per ton	39 0 .. 40 0		39 0 .. 40 0	
Gioja	"	36 0 .. 37 0		36 0 .. 37 0	
Levant	"	41 0 .. 41 10		41 0 .. 41 10	
Mogador	"	35 10 .. 36 0		35 10 .. 36 0	
Spanish	"	39 0 .. 40 0		39 0 .. 40 0	
Sicily	"	39 0 .. 0 0		39 0 .. 0 0	
Cocoanut, Cochin	"	32 0 .. 32 10		33 0 .. 33 15	
Ceylon	"	31 0 .. 0 0		32 0 .. 32 5	
Mauritius	"	0 0 .. 0 0		0 0 .. 0 0	
Palm, fine	"	34 0 .. 34 10		34 0 .. 34 10	
Linseed	"	19 10 .. 19 15		20 15 .. 21 5	
Rapeseed, English, pale	"	29 0 .. 0 0		27 15 .. 0 0	
brown	"	27 0 .. 0 0		26 0 .. 0 0	
Cottonseed	"	26 0 .. 27 0		25 0 .. 26 0	
Lard	"	41 0 .. 43 0		41 0 .. 43 0	
Tallow	"	28 10 .. 45 0		28 10 .. 45 0	
		s. d.	s. d.	s. d.	s. d.
Turpentine, American	per cwt.	23 0 .. 23 3		23 0 .. 23 3	
Petroleum, refined	per gall.	0 6⅜ .. 0 6⅝		0 6⅜ .. 0 6¾	
Spirit	"	0 7¾ .. 0 8		0 7 .. 0 8	
SEEDS.					
Canary	per qr.	45 0 .. 60 0		45 0 .. 60 0	
Caraway, English	per cwt.	0 0 .. 0 0		0 0 .. 0 0	
German, &c.	"	18 0 .. 26 0		18 0 .. 26 0	
Coriander	"	10 0 .. 21 0		10 0 .. 21 0	
Hemp	per qr.	38 0 .. 0 0		38 0 .. 0 0	
Linseed, English	"	0 0 .. 0 0		0 0 .. 0 0	
Black Sea & Azof	"	40 0 .. 0 0		40 0 .. 0 0	
Calcutta	"	43 0 .. 43 6		44 3 .. 0 0	
Bombay	"	43 6 .. 44 0		43 6 .. 44 0	
St. Petersburg	"	35 0 .. 38 0		35 0 .. 38 0	
Mustard, brown	per bush.	10 0 .. 15 0		10 0 .. 15 0	
white	"	8 0 .. 12 0		8 0 .. 12 0	
Poppy, East India	per qr.	43 0 .. 0 0		43 0 .. 0 0	
SPICES.					
Cassia Lignea	per cwt.	27 6 .. 0 0		28 6 .. 29 0	
Vera	"	20 0 .. 26 0		18 0 .. 23 0	
Buds	"	34 0 .. 0 0		34 0 .. 0 0	
Cinnamon, Ceylon:					
1st quality	per lb.	1 0 .. 2 6		1 0 .. 2 6	
2nd ditto	"	1 0 .. 2 3		1 0 .. 2 3	
3rd ditto	"	0 8 .. 1 6		0 8 .. 1 6	
Tellicherry	"	0 0 .. 0 0		0 0 .. 0 0	
Chips	"	0 2½ .. 0 5		0 2½ .. 0 5	
Cloves, Penang	"	1 3 .. 1 6		1 3 .. 1 6	
Amboyna	"	0 8 .. 0 9½		0 8 .. 0 9½	
Zanzibar	"	0 5¼ .. 0 5⅝		0 5¼ .. 0 5⅝	
Ginger, Jam., fine	per cwt.	70 0 .. 160 0		90 0 .. 0 0	
Ord. to good	"	48 0 .. 65 0		55 0 .. 75 0	
African	"	47 0 .. 0 0		47 0 .. 0 0	
Bengal	"	47 0 .. 0 0		47 0 .. 0 0	
Malabar	"	0 0 .. 0 0		0 0 .. 0 0	
Cochin	"	45 0 .. 107 6		48 0 .. 115 0	
Pepper, Black, Malabar	per lb.	0 7⅜ .. 0 7½		0 7⅜ .. 0 7½	
Singapore	"	0 7⅜ .. 0 7½		0 7⅜ .. 0 7½	
White	"	0 10 .. 0 10⅝		0 10 .. 0 10⅝	
Cayenne	"	0 6 .. 0 11½		0 6 .. 0 11½	
Mace, 1st quality	"	1 3 .. 1 9		1 3 .. 1 9	
2nd and inferior	"	1 1 .. 1 2		1 1 .. 1 2	
Nutmegs, 78 to 60 to lb.	"	2 6 .. 3 5		2 6 .. 3 5	
90 80 "	"	2 3 .. 2 5		2 3 .. 2 5	
132 95 "	"	1 7 .. 2 3		1 7 .. 2 3	
Pimenta	"	0 2¼ .. 0 2⅝		0 2¼ .. 0 2⅝	
VARIOUS PRODUCTS.					
COCHINEAL—					
Honduras, black	per lb.	1 1 .. 1 3		1 1 .. 1 3	
" silver	"	1 0 .. 1 2		1 0 .. 1 2	
Mexican, black	"	1 0 .. 1 1		1 0 .. 1 1	
" silver	"	0 11 .. 1 0		0 11 .. 1 0	
Teneriffe, black	"	1 1 .. 1 2		1 1 .. 1 2	
" silver	"	0 11 .. 1 0		0 11 .. 1 0	
GALLS, Tky blue	"	45 0 .. 60 0		45 0 .. 60 0	
" China	"	49 0 .. 50 0		49 0 .. 50 0	
INDIGO, Bengal	"	3 0 .. 8 0		3 0 .. 8 0	
" Madras	"	1 5 .. 6 0		1 5 .. 6 0	
" Kurpah	"	2 0 .. 5 6		2 0 .. 5 6	
" Oude	"	1 6 .. 5 8		1 6 .. 5 8	
" Guatemala	"	1 6 .. 6 4		1 6 .. 6 4	
ROSIN, American	per cwt.	4 9 .. 12 0		4 9 .. 12 0	
SOAP, Castile	"	28 0 .. 0 0		28 0 .. 0 0	
SOY, China	per gall.	1 6 .. 0 0		1 6 .. 0 0	
WAX, Bees, English	per cwt.	£0 0 .. £0 0		£0 0 .. £0 0	
Jamaica	"	7 10 .. 8 0		7 10 .. 8 0	
East India	"	6 0 .. 7/12/6		6 0 .. 7/12/6	
Vegetable, Japan	"	£2 12 .. £2 14		£2 12 .. £2 14	
Paraffin	per lb.	0 4 .. 0 6		0 4 .. 0 6	
WOOD, Dye, Bar	per ton	£3 15 .. 4/2/6		£3 15 .. 4/2/6	
Brazil	"	10 0 .. 20 0		10 0 .. 20 0	
Cam	"	16 0 .. 30 0		16 0 .. 30 0	
Fustic, Cuba	"	0 0 .. 6 0		0 0 .. 6 0	
Jamaica	"	4 5 .. 5 15		4 5 .. 5 15	
Logwood, Campeachy	"	7 0 .. 9 10		7 0 .. 9 10	
Jamaica	"	5 0 .. 5/17/6		5 0 .. 5/17/6	
Lima, first pile	"	7/12/6 .. 8/7/6		7/12/6 .. 8/7/6	
Red Sandars	"	6/2/6 .. 6 5		6/2/6 .. 6 5	

Correspondence

Legal Queries.

20/105. *Lex.*—The course you propose to take is a rather risky one both for you and your friend. Unless you have the fullest confidence each in the other you had better not undertake it. If, however, you do decide to carry it out, he must be the actual proprietor at present, signing a contract to surrender the business to you when you shall be qualified. You being of age can doubtless contract to accept any pecuniary responsibilities, but he, of course, will be first liable to creditors, and his subsequent claim on you or your securities will concern you and the other contracting parties alone. Let the agreements between you in such a case be drawn up by a competent solicitor.

8/205. *Scio.*—An apprentice may have cause to complain of inefficient instruction in his business, but there is a long step between that and a legal claim. A chemist contracts to teach his trade, but no man living can teach all there is to know. How far short of perfection one may legally stop is a question we do not care to discuss. But your idea of suing your first master for tutor's fees incurred two or three years after you left him is quite impracticable.

29/208. *Chemicus.*—The law is rather vague as to how much of a title is protected by registration of trade-mark. Pepper's quinine and iron tonic, with a certain design, is registered, and of course you may not use that in full. Mr. Pepper would be protected in equity against any attempt to pass off another preparation as his; but our own opinion is that he ought not to be granted a monopoly in the title "Quinine and Iron Tonic" simply. We cannot prophesy, however, what a court might say.

Responsibility for Breakage.

To the Chemist and Druggist—

SIR,—I should feel obliged if you would inform me what is the custom of the trade in reference to the following: viz., I engaged a *locum tenens* for four days during a holiday. In my absence he let a chair fall into a large pane of glass; can I compel him to pay for it?

I might mention that on my return I paid him, he owned having broken it, and said on his leaving that when it was put in if I would forward the bill to him he would pay it; he now refuses to do so; of course I have not paid the glazier. Would it be for me to sue him in the county court, or the glazier. The amount is 4*s*. An early reply will oblige,

Yours truly,

15/223.

[You, who gave the order will have to pay the glazier; there is no contract between him and the person who broke the glass. Having done this, you will apply to the person who negligently did the damage for the amount which you have paid on his behalf. He has already admitted his liability; and, therefore, is not likely seriously to defend the action. But you would have saved yourself some trouble and possible risk if you had deducted from the money which you had to pay him a sufficient amount to pay the glazier's bill.]

Chemists' Agents.

To the Chemist and Druggist—

SIR,—A chemist, for the convenience of the inhabitants of a small village outside the town where he carries on business, arranges with a shopkeeper in that village to become his agent for the sale of his proprietary articles, simple drugs, and patent medicines. The village shop is simply a depôt for the chemist's goods (including ordinary patent medicines), established for the convenience of the villagers.

Will one patent-medicine licence cover both places, or will a second licence be required for the village agency? The chemist allows the agent a percentage on the sales—on patents allows the price of the stamp.

If one licence is sufficient for both places, would it also do for three or more agencies carried on under similar conditions?

I may add that the chemist's licence has on it both his own and the agent's name and address; and, as the agency has been carried on for some years with the knowledge of the authorities, they must regard one licence as sufficient, but I cannot understand it, as the agent really sells the patents, and the chemist acts as a wholesale dealer.

October 8. DURHAM.

[Neither do we understand. A licensed person may sell patent medicines here, there, and everywhere, and if the village shop is merely a branch of his own, the one licence is sufficient. But to make it a *bonâ-fide* branch he must be rated for that shop, and the person conducting it must be directly in his employment.]

205/56. **Dispensing Difficulties.**—*C. B. G.* asks which is the correct method of sending out the following (or any similar prescription)—with the magnesia filtered or not?

Olei lupuli	℥vj.
Mag. carb. levi.	gr. x.
Aquæ	ad. ℥j.

[Dispense the draught with the magnesia.]

To The Chemist and Druggist—

SIR,—With reference to the dispensing difficulty (198/71), I think your explanation hardly satisfactory. Were the water of the borax the sole cause of deliquescence, the reaction would take place when the powders are mixed and put into a bottle; but it does not. I do not know whether you have tried drying borax in a crucible, but I think that you probably have not. I find that 25 per cent. (and probably more) of the weight of borax can be driven off over a water-bath, but that when mixed and subject to exposure it behaves in a similar manner to the undried, the absorption of moisture, perhaps being a little retarded.

The prescription that came under my notice was soda bicarb., sod. bibor. sod. chlor., of each gr. x.; saccbar., gr. xx. I had not time to determine the cause, but dispensed them in wax-paper and put the powders in a wide-mouth bottle. My own idea is that the sod. chlor. absorbs the moisture and hands it on to the other salts; salt, we know, is very hygroscopic.

Yours,

H. R. M.

A. L. Doran, Bray, says:—"I have attempted to make gelatine suppositories according to the directions given in the Diary for 1884, but I find that though the mass itself gives satisfactory results, when I medicated the suppositories with 5 grains in each of chloral and bromide potassium, they remained quite fluid and would not set, I then increased the gelatine, but this had no effect; would you kindly state the cause of this?"

[Gelatine is apparently not a suitable medicine for a chloral suppository, particularly in the quantity here ordered. We find that even 5 per cent. of chloral added to the gelatine mass (as ordered in the Diary, and which forms an admirable mass) tends to produce stickiness in the mass, while an increase in the quantity gradually destroys the tenacity of the mass. We know of no suitable way of overcoming this.]

Churchill's Syrups of the Hypophosphites.—We take the following from Hager's Pharm. Praxis:—Churchill's syrup of hypophosphite of lime is a solution of 1 part of the hypophosphite in 100 parts of simple syrup. Churchill's syrup of hypophosphite of soda is 5 parts of hypophosphite of soda dissolved in 50 parts of syrup of orange-flowers and 350 parts of simple syrup. A compound syrup of the hypophosphites, similar to Churchill's, may be made by the following formula (from Kilner's "Modern Pharmacy"):—

Hypophosphite of lime	512 grains
„ soda	256 „
„ potash	128 „
Hypophosphorus acid, dil.	2 oz.
Warm water	14 „
Prepared flavouring (aq. aurant. flor.)	2 „
Sugar	32 „

Dissolve the hypophosphites in the water and acid, filter, and add flavouring and sugar, dissolve, and filter.

Assistants for Australia.

To the Chemist and Druggist—

SIR,—Seeing your correspondence in THE CHEMIST AND DRUGGIST a few months ago, *re* "Assistants for Australia," allow me to say a few words to intending emigrants to this country—or, at any rate, to New South Wales.

In one of the letters I happened to read, a statement was made that there was room for twenty good assistants in this colony. I, myself, do not think one-quarter of that number would find good employment.

If a young man (and he must be young) has, say 50*l*. or 100*l*., and can afford to wait a month or two when here, he may get a good post. If he has not these means, I should certainly advise him to think twice before leaving home and comfort. The pay is certainly better here, but hours of business, I found by personal experience, are longer, and living and clothing are very expensive items.

A fortnight ago I advertised for an assistant in the morning paper, and received no less than eighteen applicants before 11 A.M. Half of these were certainly not of the class that I should care to see in a pharmacy of mine, but amongst the other half were young men, to all appearance, fully fit for their work.

So much for the scarcity of assistants.

In conclusion, let me state, to those who do make up their minds to come, that they must keep steady and be prepared to work when they arrive in the colony.

Yours truly,

Sydney, N.S.W. M. (168/18.)

Foreign Patent Medicines.

To the Chemist and Druggist—

Sir,—Referring to your article on the "Foreign Medicines" question (which we fully approve, by the way), and without knowing whether you or some of your readers may follow up the matter, we think it worth while to consider the ground taken by the Commissioners a little in detail. We therefore jot down the following, which may be useful in some way:—

To admit the reasoning stated by the Commissioners, viz., that "every foreign medicine, not being a drug, is (thereby) placed in the same positions as if it had been by name included in such (alphabetical) list" would be to override the spirit and intention of the framers of the Act.

For it is now sought to render liable, under the line "Foreign Medicines of all kinds, except Drugs," any mixture of drugs coming from abroad, irrespective of the exemptions which would undoubtedly apply to them if not foreign. If this be conceded, we fail to see how a foreign drug-mixture (medicine) for cattle can be exempted. On page 1,357 of the Act, all other pills, powders, &c., to be used for the cure of any disorder or complaint affecting the human body are made liable. But if the definition "Foreign" is to be paramount, and to dominate every other definition, such a general application would include the more particular definition "Cattle" or "Veterinary."

We say that "foreign medicines" means properly foreign "proprietary" medicines, for the reason that no medicine but a "proprietary" one would ever have been "by name included" in the list in the schedule.

And that, if the exemption to which we have already drawn attention cannot apply in the case of a foreign medicine, neither can the description "human" apply. Therefore foreign cattle medicines ought to bear a stamp!

But such a pretension seems monstrous in the face of common sense and practice. In short, the new contention set up proves too much, and it is said that an argument which proves too much proves nothing.

To look at this point from another side. A cattle medicine is not a "medicine" for the purposes of the Act. According to the novel ruling, a cattle medicine, if foreign, becomes a "medicine" for the purposes of the Act. But this would be a *reductio ad absurdum* in the face of universal practice, established with the sanction of those whose duty it has been to administer the Act. If it be absurd to set up, as paramount, the definition "foreign" as overriding the word "whatsoever," as it occurs in the special exemptions, how much more absurd is it to let the allusion to the "human body" override the word "foreign," as well as everything else!

But perhaps all foreign cattle medicines should be regarded as "Foods"?

We are, sir, yours faithfully,

QUERISTS.

65/200. *Little Dot* kindly sends us the following formula for **Footrot in Sheep**, in answer to *H. B.* (198/54):—

Antim. mur.	℥iv.
Cupri sulph.	℥j.
Verdigris	℥ss.
Acid. mur. fort.	℥j.
Arsenic. alb.	℥ss.
Acetum	℥viij.

M.

Dissolve the copper, verdigris, and arsenic in the vinegar, and add the other ingredients in succession.

Sign.—Apply with a feather.

The above is very largely used in the West Highlands.

Sussex (51/204) is answered by the above.

5/207. *J. W.*—For razor-paste formulæ see another page in this number.

Mr. Walter Parry wants to know of a metal, china, or composition which will retain its colour and not become black or dingy though a flame or light is playing over the globe.

203/27. *J. A. B.*—There are 2 parts of tr. opii in each 100 of Dr. Vesper's injection, and 1 gramme is roughly 15½ grains.

200/50.—**Decolorising the Hair.**—*Abstergent* writes:—A friend of mine in time of trouble found his hair (which was black) turn suddenly grey, leaving a few scattered locks of the primary colour. He has applied to me for some chemicals to turn the black locks grey, and my experiments have been utterly unsatisfactory. I convert black to red, but not to white or grey. Can any of your correspondents give a suggestion?

[As one of the mildest and probably one of the safest bleaching-agents we would be disposed to try a solution of lime. We know of no dye that will effect the purpose, and therefore recommend the use of some safe bleaching agent.]

Abolition of Co-operative Stores.

To the Chemist and Druggist—

Sir,—Your correspondents "Not a Scalper" and "Instanet" have once more set the ball rolling with which they hope to knock down and abolish co-operative stores.

Wishing their efforts may be crowned with success, will you allow me to air my suggestions? You pertinently observe, "At the last general election the question was put to candidates hundreds of times whether they would endeavour to prevent Government servants trading, and many very worthless promises were extracted." An obvious remedy for this would be, I think, for tradesmen of all kinds to completely sink their political opinions, and combine to start in every constituency where there was any chance of success a candidate of their own—a tradesman—pledged to use his best endeavours to prevent Government servants from trading, to save the pockets of his constituents by reducing taxation in the shape of increasing the hours of work for, and thereby reducing the number of Government servants, and to reduce superannuations, pensions, &c.

There are, I should imagine, several constituencies where a traders' candidate would have a fair chance of success. The return of a few traders' candidates would, I think, tend more than anything to undermine "the stores."

The expenses of a *bonâ-fide* trade candidate should in common fairness be borne by his constituents; these should not be heavy, and might be met by a small annual subscription from each constituent.

Should any of your readers agree with me I should be pleased to correspond with them with the object of forming a Traders' Parliamentary League.

Your obedient servant,

Highworth, Wilts. T. HAMBRIDGE.

A Veterinary Recipe.

To the Chemist and Druggist—

Sir,—I think the enclosed is worth the attention of the curious; if lithographed, it would appear in all its native glory, indisputable, bucolic, and genuine, standing clearly out as a cherished proprietary of a Kentish hind. It has been my proud duty to dispense the learned prescription:—

2 oz. of Common Seed And Beat it And put it in There Vats 3 pennard of Lavnder 3 pennard of musk. + drops 3 Pennard of Sweet Salts and put it in a bottle Let them smell to it as often, as you have a uppertunity.

The cumin seed, lavender, and musk were easily arranged, but how to settle the sweet salts taxed our resources; a flash of inspiration seemed to come, and we levied a charge on the Sp. Am. Co, which answered very well. May I offer the receipe for the acceptance of any brethren who wish for an invaluable remedy for kicking steeds, on the sole condition that they tell nobody else?

Yours faithfully,

October 7, 1884. SILENT A.

Chemists and their Long Hours.

To the Chemist and Druggist—

Sir,—A correspondent in your last issue attacks a respectable firm by name, whilst meanly sheltering himself from the opprobrium which his cowardice merits under the *nom de plume* of "Stand Fast." With such an antagonist I can hold no controversy, but must leave his motives and character, and those of the firm he so bravely villifies, to be gathered from his unanswered letter, and from the advertisement which has brought upon its authors this vicious but harmless stab in the dark from the hand of the valiant "Stand Fast."

I am, sir, yours truly,

WILLIAM DAY,

Managing Director of the Southampton Drug Company (Limited).

195/64. Sir,—The combination of sulphate of quinine with iodide of potass, (by dissolving the quinine in glycerine) named in the August number of THE CHEMIST AND DRUGGIST, page 416, is not very new, it being put prominently forward in a paper I read before the Homœopathic Pharmaceutic Association at Oxford, about six years since. It was also published in the *Homœopathic Review* about the same time, in some remarks on the Homœopathic Pharmacopœia.

J. W. & Son (10/202) send us the following formula for—

A Quickly-made Writing-ink.

Aniline black	1 oz.
Pyrogallic acid	½ oz.
Sulphate of iron	2 oz.
Water	1 gallon

Can be made in five minutes; costs about 1s. per gallon.

The specimen of writing done with this ink shows it to be a fair, but by no means a first-rate writing-fluid. Cheapness seems to be the principal recommendation of the formula.

Mending a Mortar—An Experience.

For the following useful paragraph we are indebted to Mr. A. Patterson, Glasgow:—

Like most of my brethren in trade, I some time ago had the misfortune to have broken a good-sized Wedgewood mortar, and being unwilling to throw it out, it was laid aside to be cemented at some convenient season. When the convenient season arrived the broken mortar was made the subject of a series of experiments, first with one of the recommended cements, then with another, and, lastly, with a strong shellac varnish, but none of these stood the test of regular counter-work, and one after another failed in realising my hope that now the mortar was mended. Having read among my collection of recipes that equal parts of shellac and guttapercha melted, and applied hot, made a good lasting cement, I resolved to give this also a trial, and, joy of joys! my broken mortar became a whole one. This cement is, of course, a coloured one, but for such a purpose as the one I used it for it is a good one. But, like many other good things, there is a *but* in its use. The but I found to be the great difficulty of melting and applying the melted mixture of shellac and guttapercha. It requires a strong heat, and when it is heated sufficiently it becomes so stiff that its application is a difficult matter. I became impressed that if this difficulty could be removed a good strong cement would be the result. So, by way of experiment, I took a small quantity of shellac, and covered it with methylated spirit, allowing it to stand till the shellac was dissolved. I now procured a small tin of guttapercha solution, which is used for mending boots and shoes, and mixed equal proportions of this solution with my solution of shellac. I had now a mixture which was easy of application with an ordinary camel-hair pencil, and possesses the good properties of the less-easily applied mixture of solids. The article to be cemented should be heated for a short time before a fire, and the bottle containing the solution of shellac and guttapercha should be placed in warm water a few minutes before using.

200/36. *A. Z. W.* wants formulæ for the most saleable **Orchid Perfumes**; also Stephanotis.

Shoe-blacking.—As you are a new subscriber, we quote from The Chemists' and Druggists' Diary, 1884, the subjoined directions for the manufacture of blacking:—

	Liquid		Paste
	No. 1	No. 2	
Ivory black	12 oz	8 oz.	2 lbs.
Treacle	4 ,,	6 ,,	1 ,,
Sperm oil	1 ,,	3x.	4 oz.
Vinegar	2 pints	24 oz.	5 ,,
Vitriol	2 oz. weight	1 oz. weight	5 ,,
Sulphate of iron	—	—	½ oz., solve in
Hot water	—	—	5 oz.
Gum Arabic	—	—	¾ ,,

The following are the directions given by Mr. Day in the jury reports of the 1851 Exhibition:—

"The bone-black, in the state of very fine powder, and the sperm oil are at first thoroughly incorporated; the sugar or molasses, mixed with a small proportion of vinegar, is now added and well stirred with the mass; strong sulphuric acid is then gradually poured into the vessel." Heat is produced and effervescence ensues, the object of the addition of vitriol being to decompose the tri-calcic phosphate and calcic carbonate of the bone-black, acid phosphate and sulphate of lime being formed, which, produced in this manner, give a very tenacious consistency to the mass, and cause thorough division of the bone-black particles, so that when the blacking is applied to leather it is capable of receiving a high polish; the sugar and oil add to this property. "The mixture, after the action of the acid has ceased, is diluted with an equivalent quantity of vinegar, and is bottled whilst it is still warm. . . . the vinegar should not be too weak else the blacking will not keep." Paste blacking is made in the same way, the proportion of vinegar being smaller. *Note*—Many people put on too much paste blacking; it should never be put on thicker than a cream, and the less used the brighter the polish.

26,707. *J. P.*—**Coghill's Inhalation Fluid.**—The following is Dr. Coghill's formula as published by S. Maw, Son & Thompson:—

Tinc. iodi ethereal is	3ij.
Acid. carbolici	3ij.
Creasoti vel thymoli	3j.
Spr. vin. rect. ad	3j.

M.

When cough is urgent or breathing embarrassed, chloroform or sulph. æther. may be added at discretion.

Hypodermic Injection of Ergotine.

To the Chemist and Druggist—

SIR,—An error has again found its way into your columns relating to the hypodermic dose of ergotine.

In answer to your correspondent "Dermatologist," on page 478, you quote from Lescher's "Recent Materia Medica," that "Ergotine," the crystallised alkaloid, has been used hypodermically in doses of 1 grain. It should be 1-10th of a grain.

I am, sir, yours truly,

P. F. ROWSELL.

[The state of the case is as follows:—Bonjean's ergotine, the one universally used, is administered in 1-grain doses. Ergotin, which Watt's "Dictionary" says is Wigger's, described in Lescher's "Recent Materia Medica," is rarely if ever prescribed. It is given in 1-10th-grain doses.]

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206 32. *Sub Umbra Floresco.*—**Fruit Syrups** for diluting with plain or aërated waters. We select the subjoined from numerous formulæ in Skuse's "Confectioners' Hand-book":—

Lemon Syrup.—Grate off the yellow rinds of lemons, and beat up with sufficient sugar. Express the lemon juice; add to each pint of juice 1 pint of water and 3½ lbs. of granulated sugar, including that rubbed up with the rind. Warm until the sugar is dissolved, and strain.

Strawberry Syrup.—(1). Take of fresh ripe strawberries 10 quarts, white sugar 24 lbs., water 2 pints; spread a portion of the sugar over the fruit in layers, let it stand four or five hours, express the juice, strain, add remainder of sugar and water, raise to the boiling-point, and strain. (2). To 54 lbs. of sugar add 30 lbs. of water, boil, and strain. To the cooled syrup add 8 oz. of tartaric acid dissolved in 1¼ lb. of hot water, then 3 oz. of essence of strawberry, and add 2 lbs. of sweet Hungarian wine, and colour a lively red with aniline.

Raspberry Syrup.—Take 1 pint raspberry juice from fresh fruit ½ pint, red currant juice syrup (1½ sugar to 1 water), 8 pints, mix. The juices heated to 180° F., and strained or filtered previous to adding the sugar, will keep indefinitely.

Black Currant Syrup.—Syrup (1½ sugar to 1 water) 6 pints, distilled water 2 pints, tartaric acid 2 oz., black currant essence 3 drachms, colour with burnt sugar.

Pineapple Syrup.—Syrup, as before, 6 pints, distilled water 2 pints, tartaric acid 1 oz., essence of pineapple 1 drachm, colour with saffron.

Chrisma Sulphuris, prescribed by a Glasgow physician, is a preparation of Messrs. Allen & Hanburys. Unlike the ointment of the Pharmacopœia, which is a mere mixture of sulphur with the base, it is a solution of sulphur in chrisma. It has several advantages as a skin application. It is more effective, and is neither irritating, offensive, nor unsightly. It is said to be an effective parasiticide.

We have had very many inquiries for a formula for **Liq. Copaibæ Cubebæ et Buchu,** but are unable to supply it.

Receipts for **Inks for Indiarubber Stamps** were given on pages 173, 533, and 563 of our last volume.

68/207. *F. W. S.*—**Works on Materia Medica.**—Royle's "Materia Medica" (Churchill), and the modern editions of Pereira, edited by Professors Redwood and Bentley (Longmans), are both well known and recommended works. Dr. Whitla's "Elements of Pharmacy, Materia Medica, and Therapeutics" (Renshaw), has features which render it useful both for students and practitioners.

201/34. **Aniline for Colouring Food Preparations.**—*A. D. G.* asks if we consider harmless a spice used in flavouring coloured with scarlet aniline in the proportion of 5 grains to 1½ lb. of spice. In reply, we can only point out that the use of aniline dyes, especially magenta, in articles of food has been strictly forbidden by more than one Continental Government, on what appeared to them good grounds. We are not acquainted with all the evidence, but should be very reluctant to express an opinion in favour of aniline. As red colouring-matters for articles of food, the French Government directs the use of carmine, cochineal, Brazil wood lake, or orchil.

47/206. *Cough.*—The Chemists' and Druggists' Diary, 1881, gives formulæ for more than a dozen cough-mixtures. Powell's is said by Beasley to be imitated by mixing 2 drachms syr. tolu, 1 oz. paregoric, and 2 oz. liquorice juice (solution ?). A good formula is quoted from the United States Pharmacopœia. Dissolve 1 oz. each of powdered liquorice, acacia, and sugar in 12 oz. of water, and add 2 oz. of paregoric and 1 oz. each of antimonial wine and spirits of nitre. Your other question can be best answered by one of the wholesale sundries or glass-bottle houses.

204/55. *A. C.*—Britten's "Dispensers' Vade Mecum" has long been out of print. You might perhaps get a second-hand copy by advertising in our Exchange Column. But you would be wiser to get Ince's "Latin Grammar of Pharmacy," and study it carefully.

There are no good herbal-medicine books. The best of them are barbarous when compared with the medical knowledge of the day. Dr. Coffin's "Medical Botany" is highly esteemed by those who call themselves medical botanists, and Culpepper's "Herbal," though published more than a century ago, is still in demand. The forthcoming edition of The Chemists' and Druggists' Diary will contain a list of abbreviations used in prescriptions.

207/8. *Alpha.*—**Koumiss.**—Exhaustive information is given in The Chemists' and Druggists' Diary, 1884, p. 118. As you seem to be a new subscriber, we reproduce the simplest of the processes there given, although we cannot say if it yields the best product. You will find much explanatory matter in the article alluded to.

Fill into a strong champagne-bottle good, fresh, unboiled cow's milk to such a height that after the addition of 1 oz. of granulated or powdered sugar, and after corking, there would still be left at least an inch of empty space below the cork. Before corking, add a piece of fresh compressed yeast, about the size of two peas, then cork, and tie the cork firmly down. In place of compressed yeast, a teaspoonful of good beer-yeast may be taken. The contents of the bottle are well shaken repeatedly, then the bottles are placed in a cellar, where they are turned up and down a few times during the day. From and after the fifth day the mixture is ready, and may be drunk to about the twentieth day.

Substitute for Morphia in Cough Mixtures.—The elaborate experiments of Dr. Rossbach, of Würzburg, prove that morphia has a unique influence on the mucous membrane. No other drug used hitherto as an expectorant has such useful properties. It lessens the irritability of the mucous membrane and diminishes the secretion, though never to such an extent as to produce inflammation. Dr. Rossbach found a combination of morphia and apomorphia extremely useful in cases of difficult expectoration. In doses of $\frac{1}{15}$ to $\frac{1}{7}$ grain thrice daily, with a little dilute hydrochloric acid, apomorphia produces a very large increase in the secretion of the mucous membrane of the larynx, trachea, and bronchi.

This suggests a possibility of compounding a cough mixture that shall act as an emetic if given in an over-dose; but it would be treading on very dangerous ground, as a failure in the experiment might prove fatal. We learn from Martindale's "Extra Pharmacopœia" that apomorphia never failed to produce emesis by a single dose, $\frac{1}{5}$ grain by mouth or $\frac{1}{10}$ grain hypodermically. As an expectorant $\frac{1}{20}$ grain every two hours is useful, or, given with the same quantity of morphia every two or four hours, it lessens cough and increases fluidity of sputa.

Morphia is said to increase the emetic effects of apomorphia. The dose of the acetate is $\frac{1}{3}$ grain.

There is some difficulty in preserving solutions of apomorphia, though the addition of glycerine is said to effect this. Sugar must not be added, and the mixture should be kept in a non-actinic bottle.

Emulcent for Spirit of Tar.—We believe you will find quillaia bark effective. We do not know what constituents of the spirit you wish to remove, so can give you no hints as to rectification.

48/206. *J. A. W.* wants the formula for Dr. B. W. Haire's "Asthma Cure," prepared at Cincinnati.

39/226. *Herba.*—**Herbs for Smoking.**—A French recipe gives stramonium and sage in equal parts as a mixture of herbs for smoking. It will probably be requisite to damp the mixture first with a strong solution of nitre, and afterwards dry it, to make it smoke easily.

HYDRIODIC ACID IN ASTHMA yields good results if given after this fashion: Begin with small doses of the syrup of hydriodic acid, twenty or thirty drops well diluted with water, and taken about half an hour to one hour before meals; if taken after meals, it may disturb the stomach, set up fermentation, and cause colic, acid stomach, and pain in the head; increase the dose gradually, and it should not exceed a table-spoonful.—*The Druggist.*

LIQUID STARCH-FINISH.—Make an emulsion of—

Spermaceti	1 oz.
Gum arabic	1 oz.
Borax	1 oz.
Glycerine	2½ oz.
Water	14½ oz.
Perfume	sufficient

Three spoonfuls to about 4 oz. of boiling starch-paste.

—*Popular Science News.*

Suggestions.

TO REMOVE RUST STAINS FROM COTTON AND LINEN.—A mixture of 2 parts powdered cream tartar with 1 part powdered oxalic acid is said to give better results than when only oxalic acid is used. Apply a little of the powder to the dampened goods.—*Druggists' Circular.*

ACUTE ECZEMA OF THE HANDS is, according to Dr. Van Harlington, of Philadelphia, cured by the application of a saturated solution of boric acid, and this solution is particularly useful where there are numerous vesicular lesions inclining to coalescence and breaking down into eczema rubrum.—*Stearn's New Idea.*

SEVERAL German journals allude to the efficacy of "benzol magnesia" and grease-eradicator. It is prepared by saturating calcined magnesia with benzol. A little of this powder rubbed on a greasy stain on paper, or any fabric, will remove it, but old stains may require a repetition of the process. The mixture is said to be excellent for cleaning windows.—*Canad. Pharm, Journ.*

QUININE AND HONEY.—An anonymous correspondent of the *Lancet* says honey is the best vehicle I have yet met with for the administration of quinine to children and others to whom the flavour of this drug is very nauseous. If the alkaloid be placed in the centre of a small spoonful of honey, I venture to surmise that the bitterest repugnance to the flavour will be entirely overcome. I have tried glycerine, milk, and other vaunted specifics; but, as our American friends say, they are "not a patch" on honey.

PERCOLATORS.—Professor Oldberg, of Chicago, says all the percolators at present in the market are too wide for their length. The proportion he finds most suitable averages about 1 inch diameter to 5 or 6 inches in length. Thus a percolator capable of containing 100 fl. oz. should be 18·89 inches in length and 3·780 inches diameter at top, and 3·150 inches diameter at the shoulder. Messrs. Whitall, Tatum & Co., of Philadelphia, have made for the Chicago College of Pharmacy a set of 14 percolators, varying from 3 fl. oz. to 26 pints in capacity, according to Professor Oldberg's suggestions.

FOR BLEACHING SPONGES.—A. Vogel recommends the use of bromine water in the place of sulphurous acid. A bleaching liquid of the required consistency is easily made by shaking up a few drops of bromine in water. The sponges bleach in a few hours, while the colour of the bromine solutions becomes lighter. A second bath, followed by a washing in dilute sulphuric acid, and a final rinsing in clean water, completes the operation, and in this way even the darkest sponges may be bleached to any desired tint. The structure or durability of the sponges is not in the least affected by the operation.—*Pharmaceutische Centralhalle*, September 18, 1884.

AS A SIMPLE FEBRIFUGE, free from depressing effects, Dr. Mariano Semmola (*Allg. Med. Central Zeitung*) recommends the use of glycerine, which he prescribes in the following formula:—

Glycerine	℥j.
Acidi citrici (*vel* tartarici)	ʒss.
Aqua	℥vj.

M. Sig.: One or two tablespoonfuls every half-hour. This is for an adult.

Dr. Semmola has employed this mixture with profit in typhoid fever. In most cases its use was followed by a decrease in the amount of urea excreted.

A SIMPLE PETROLEUM TEST.—For ascertaining whether a sample of petroleum is sufficiently volatile to be dangerous' Herr Montag points out a very simple and conclusive method. He fills a glass three parts full with the petroleum to be tested, and fills up the glass with boiling water, at the same time holding a flame over it. If the vapour disengaged becomes ignited, the petroleum should not be considered a safe liquid to leave exposed to the atmosphere.—*Nat. Druggist.* This mode of testing might easily be adapted to our standard. By graduating a measure so that the exact proportions of boiling water and cold petroleum, as might be proved by experiment to be necessary, could be taken, the process of testing would be much simplified.

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New York Medical Journal, 1880, Dr. F. WEIR.

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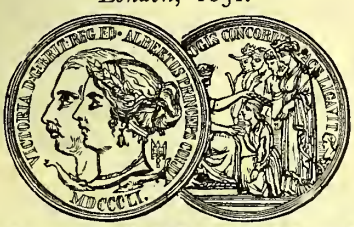
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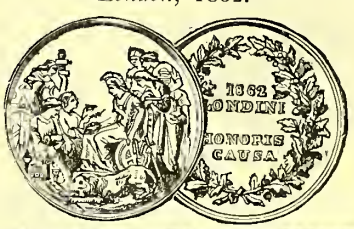
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1/1½ Ditto	.. 7/
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2/3.. Ditto	..15/
1/9..Pâté Aubergier	..14/6
2/0.. „ de Berthé	..16/
2/9.. „ de Coca	..23/
1/9.. „ de Georgé	..13/
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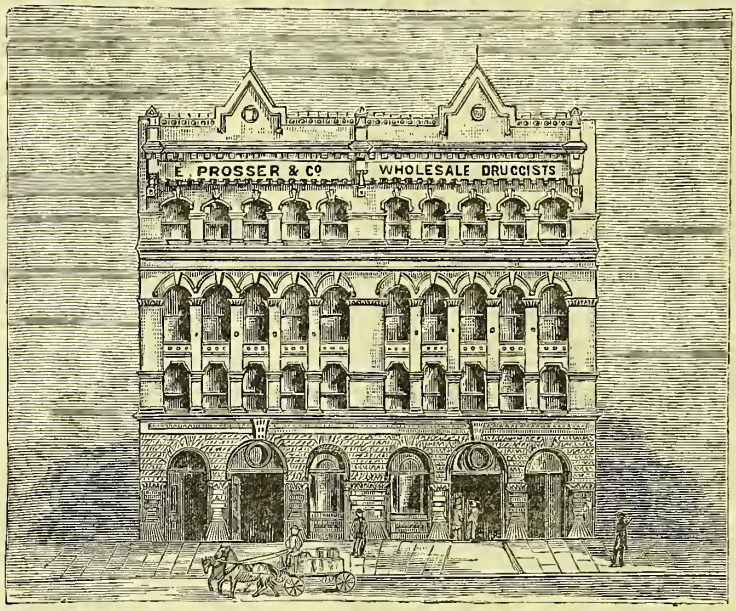
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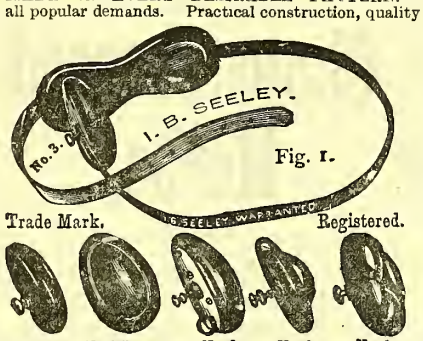


Fig. 1.

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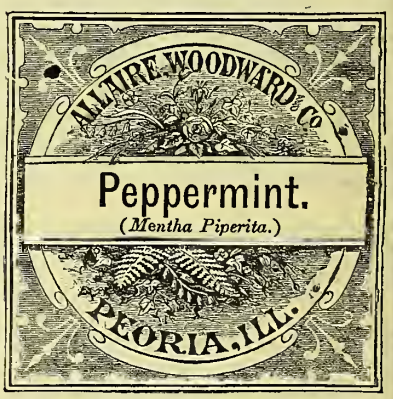
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PROPERTIES.
Emmenagogue, nervine, antispasmodic. Useful in hysteria, amenorrhœa, &c. Infusion, 1 oz. in a pint of hot water. Dose, a wineglassful.



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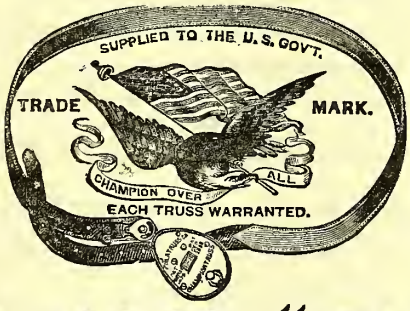
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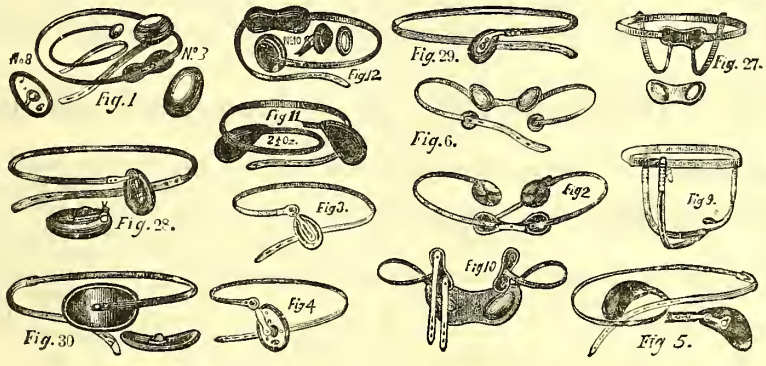
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ACID, CARBOLIC or Phenol Absolut.	Fine white hard crystals	Free from Cresylic Acid. Watery solution will not show greasy spots floating on top.
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„ TANNIC	Lightest crystals	Dissolves almost colourless in water, alcohol, and ether.
„ „	Powder and granulated	Dissolves freely in water, alcohol, and ether.
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CHLORAL HYDRATE (Liebreich's)	Transparent rhomboidals (facsimile of Dr. Liebreich's)	Will not decompose by age.
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CROTON CHLORAL	Shiny crystalline scales. (Powder form most objectionable)	Free rom foreign chlorides.
GLYCERINE	S.G. 1260, double distilled, brilliantly white, odourless; also lower S.G. and qualities	Free from lime, chlorides, metals; will stand severest chemical tests.
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POTASS BROMIDE	Fine white dry regular crystals ...	Perfectly free from iodide, and the most free from chloride.
„ CAUSTIC	Lump and stick, white	Commercially pure, and pure by alcohol.
„ CYANIDE	Ditto ditto	30%, 45%, 60%, and 95%.
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SODA SALICYLATE, and other Salicylates	White powder and crystals	Freely soluble in water and alcohol.

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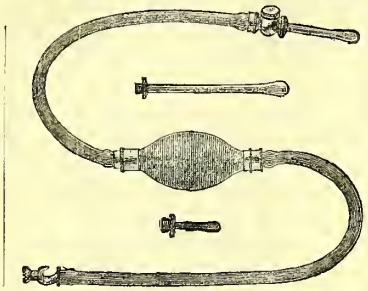
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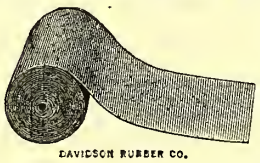
The trade **never** have any bad stock of DAVIDSON Syringes, which is so often the case with the cheap, worthless Syringes, such as rubber growing hard, pipes corroding, valves useless, &c., &c., and during the 25 years that we have made them, we do not recall a single complaint of their quality. The quality is specially desirable in countries where they have not the means of repairing, or where the climate effects the cheap adulterated rubber goods.

We have recently added a patent improvement to the Syringe **in making the metal on the suction end of the tubing in the shape of a hook,** so that the instrument can be hung up after use, and all the fluid allowed to drain out, which adds greatly to the durability of the Instrument.

These goods are exported to England, Germany, France, Holland, South America, Mexico, East Indies, &c.

GREAT IMPROVEMENT IN RUBBER BANDAGES.

DAVIDSON'S
60 FEET



BANDAGES.
LONG.

The advantages in these Bandages will at once suggest themselves to Physicians and Druggists.

They are made **60 feet long** in four widths ($1\frac{1}{2}$, 2, $2\frac{1}{2}$, and 3 inches), so that **any length or width desired** can be cut off, and it **relieves** the **Druggists** from the **necessity** of **carrying** in **stock** a line of Bandages of **various lengths.**

Many objections are found with Bandages that are made with tapes on the end, as the **tapes,** being **non-elastic,** bind the limb so rigidly as to stop or impede the circulation.

With **Davidson Bandages** these objections are entirely removed, as they are secured in place by using diaper or safety pins, so that **no part** of the limb is bound by **non-elastic material.**

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THE CHEMISTS' BALL.

A MEETING will be held, by permission, at 17 BLOOMSBURY SQUARE, on Monday Evening, November 3, 1884, at 9 P.M., for the purpose of making Preliminary Arrangements for the ensuing Ball. Any gentleman desirous of becoming a Steward, and unable to be present, will oblige by informing the Honorary Secretary of such his intention without delay.

Old Swan Lane, E.C. **FRED. W. WARRICK, Hon. Sec.**

THE CHEMISTS' AND DRUGGISTS' DIARY.

1885.

SEVENTEENTH YEAR OF PUBLICATION.

No Advertisements can be received later than October 31st. All copy and corrections should reach us by first post on that date, as we must then close for press. This is the best opportunity for advertising a Speciality to the Trade we have ever been able to offer.

The prominent feature of the literary section of the new Diary will be a new and completely revised treatise on

THE ART OF DISPENSING.

A shorter and less finished treatise on this subject appeared in the Diary for 1880, and caused that issue to be rapidly bought up.

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HYDROBROMIC SYRUP OF HYPOPHOSPHITES, &c.

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THE TRUE OL. RUSCI.

The new remedy for Eczema and Ringworm. Imported direct from the interior of Russia. See *Pharm. Journ.*, pp. 381, 439.

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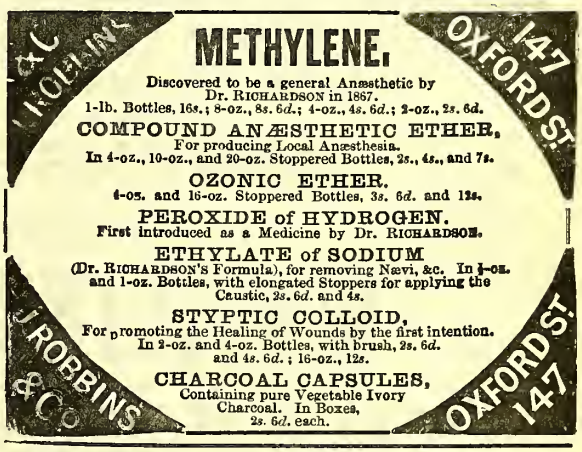
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Extractum Carobæ Fluidum	per lb.	11/- 10/- ,,
Extractum Cascara Sagrada Fluidum (Rhamnus Purshiana)	per lb	8/- 7/- ,,
Extractum Castaneæ Fluidum (Chestnut)	per lb.	9/- 8/- ,,
Extractum Chimaphilæ Fluidum (Pipsissewa)	per lb.	9/- 8/- ,,
Extractum Cimicifugæ Fluidum (Black Cohosh)	lb.	9/- 8/- ,,
Extractum Cinchonæ Flav. Fluidum	per lb.	10/6 9/6 ,,
Extractum Cinchonæ Rub. Fluidum	r)	10/6 9/6 ,,
Extractum Coca Fluidum (Coca Erythoxylon	per lb.	9/- 8/- ,,
Extractum Convalleriæ Majalis Fluidum (Lily of the Valley)	per lb.	14/- 12/6 ,,
Extractum Cornus Fluidum (Dogwood, Cornus Florida)	per lb.	10/- 9/- ,,
Extractum Coto Fluidum	per lb.	12/- 11/- ,,
Extractum Cubebæ Fluidum	per lb.	10/6 9/6 ,,
Extractum Cuspariæ Fluidum	per lb.	8/- 7/- ,,
Extractum Cypripedii Fluidum (Ladies' Slipper)	lb.	9/- 8/- ,,
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Extractum Digitalis Fluidum	per lb.	8/- 7/- ,,
Extractum Dulcamaræ Fluidum	per lb.	6/- 5/- ,,
Extractum Eucalypti Fluidum	per lb	8/- 7/- ,,
Extractum Euonymi Fluidum (Waboo Bark)	per lb.	9/- 8/- ,,
Extractum Euphorbiæ Piluliferæ Fluidum	per lb.	8/- 7/- ,,
Extractum Fraxinus Excelsior Fluidum (Common Ash)	per lb.	5/- 4/6 ,,
Extractum Fuci Vesiculosi Fluidum (Bladder Wrack)	per lb.	3/6 3/- ,,
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Extractum Grindeliæ Robustæ Fluidum (Wild Sunflower)	per lb.	8/- 7/- lb
Extractum Guaranæ Fluidum	)e	18/- 17/- ,,
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Extractum Hydrastis Fluidum (Golden Seal)	per lb.	10/- 9/- ,,
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IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD, and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

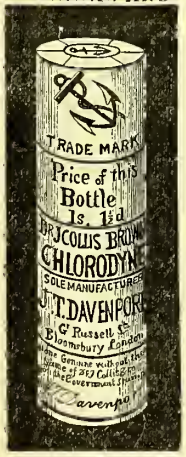
The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

ORIGINAL AND



ONLY GENUINE.

FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

Apothecaries' Hall,	London	Frazer & Green,	Glasgow	Morson, T., & Son,	London
Allen, Hanbury & Co.,	,,	Gale & Co.,	London	Newbery & Sons,	London
Baiss Brothers,	,,	Giles & Son,	Clifton	Oldham, G., & Co.,	Dublin
Banks & Richards,	Birmingham	Goulding, Messrs.	Cork	Parsons & Richardson,	Leicester
Barron, Harvey & Co.,	London	Gratton & Co.,	Belfast	Peake, Allen & Co.,	Dublin
Bell, John, & Co.,	,,	Grimwade, Ridley,	London	Raimes & Co.,	Liverpool
Bourne & Taylor,	,,	Grindley & Son,	Chester	Raimes & Co.,	York
Corbyn & Co.,	,,	Hearon, Squire & Francis,	London	Raimes, Blanshards & Co.,	Edinburgh
Cox & Gould,	,,	Hodgkinson, Tonge & Stead,	,,	Sang & Barker,	,,
Curling & Co.,	,,	Hopkins & Williams,	,,	Sanger, J., & Sons,	London
Curtis & Co.,	,,	Hovenden, R., & Sons,	,,	Sim, James, & Co.,	Aberdeen
Davy, M'Murdo & Co.,	,,	Hunt & Co.,	Exeter	Smeeton, W.,	Leeds
Dobbin, W., & Co.,	Belfast	Hunt, A., & Co.,	,,	Southall & Co.,	Birmingham
Drew, Barron & Co.,	London	Johnson, J. H. & S.,	Liverpool	Sutton, W., & Co.,	London
Drew, B., & Alexander,	,,	Langton, W., & Co.,	London	Tomlinson, Hayward & Co.,	Lincoln
Dunn & Company,	,,	Lynch & Co.,	,,	Treacher, Hodgkinson & Co.,	,,
Edwards, W.,	,,	Mander, Weaver,	Wolverhampton	Westrup, J. B.,	Kensington
Evans, Gadd & Co.,	Exeter	Marsden & Sons,	London	Westwood & Hopkins,	Lincoln
Evans, Lescher & Evans,	London	Maw & Son,	,,	Woolley, James,	Manchester
Ferris & Co.,	Bristol	Meggeson & Co.,	,,	Wyleys & Brown,	Coventry
Foulger, S., & Son,	London	Mackay, John, & Co.,	Edinburgh	Yates & Co.,	London

After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy *alone* creates the great demand.

Sold in Bottles—1s. 1½d., 2s. 9d., 4s. 6d., and 11s. Usual Discount to the Profession.

SOLE MANUFACTURER,

J. T. DAVENPORT, Pharmaceutist,

33 GREAT RUSSELL STREET, BLOOMSBURY SQUARE, LONDON.

TIKHEEL,

The New Remedy for Neuralgia, Tic, Toothache, Nervous and Sick Headache.

ONE SIZE ONLY—HALF-A-CROWN.

Price 24/- per dozen, subject to usual Patent Medicine discount. Per gross, £11 8*s*., net cash, carriage paid, box free. Export Tin-lined Cases charged 7/6 each, delivered f.o.b. Remittance in full must accompany order. For less than One Gross buyers will please write their Patent Medicine House or Wholesale Druggist.

SPECIAL QUOTATIONS FOR 5-GROSS LOTS.

Very attractive Show Cards and Counter Bills (with name and address) will be forwarded to all dealers who stock Tikheel, on receipt of label or business card and directions for enclosure.

The following testimony from Agents shows that, notwithstanding the feeling as regards Patents generally, many of the most respected members of the trade will aid in introducing a genuine remedy when put before the public in a manner utterly devoid of Quackery:—

Messrs. Penney & Botwood, Pharmaceutical Chemists, Poole:—"We are selling the medicine well; it seems wonderful in its effects." Mr. A. B. Anderson, Dundee:—"Tikheel is selling freely, and giving unqualified satisfaction." Mr. J. G. Netting, Plymouth:—"I have sold many dozens of Tikheel with great satisfaction to customers, who praise it very highly, &c. I feel a pleasure in recommending it." Mr. H. T. Doble, Tavistock:—"Tikheel has been very successful in this neighbourhood." Mr. S. Nicholson, Fakenham:—"Tikheel gives the greatest satisfaction, acting like a charm. I anticipate increased sales."

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CLARKE, BLEASDALE, BELL & CO.,

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These Cards (with the back left blank for Advertisement) supplied at 12/ per thousand. Name and Address at Foot, 5/ extra.

See Extraordinary Testimony relating to marvellous cure of **ACUTE RHEUMATIC FEVER** (the patient having suffered intense agony), from Harding de F. Cox Esq., of Great Missenden Abbey, Bucks, and 17 South Audley St., Mayfair, W. (son of the late Mr. Serjeant E. W. Cox, Barrister-at-Law and Chairman of the Middlesex Sessions).

"KOPTICA."

ACUTE RHEUMATISM AND RHEUMATIC GOUT speedily, completely, and permanently cured, even after fifteen or twenty years of semi-helplessness and suffering, and the disease driven from the system, by

"KOPTICA."

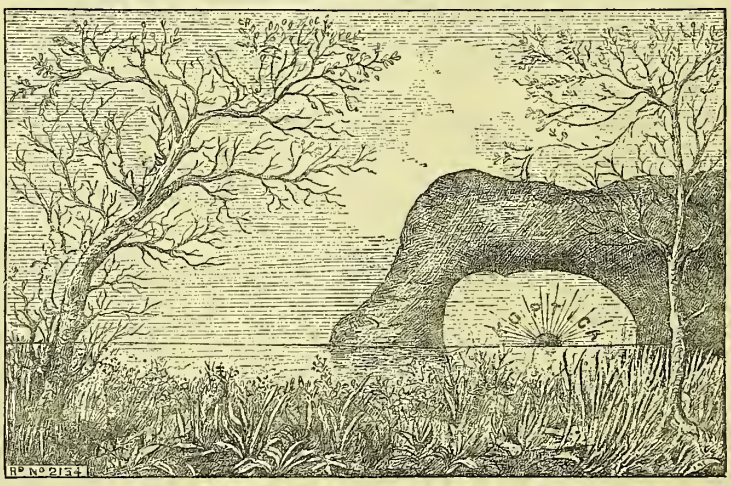
Guaranteed entirely free from all injurious drugs and perfectly harmless. Can be taken with the greatest confidence by the oldest, youngest, or most delicate.

ECONOMICAL.
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(RHEUMATISM)
Rev. B. Spannus
Rev. J. E. Carter
Mrs. E. Tucker
Miss Ringer
John Astbury, Esq., J.P.
&c. &c.

PROFITABLE.
See Testimonials from
(RHEUMATIC GOUT)
The Dean of Elphin
Rev. G. W. Straton
Mr. Richard Oborn
Mr. N. Cork
Mr. W. G. Radley
(Chemist)
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PUZZLE.

Find the Elephant, Deer, Fox, Horse, Goose, Crocodile, Pig, Lizard, Frog, Parrot, Bull, and a Man Smoking a Pipe.



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PALATABLE.
See Testimonials from
(LUMBAGO)
Capt. F. Peel
(SCIATICA)
F. Bigg, Esq.
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Mr. John Woloff

In Pink Packets, bearing the Trade Mark, 12 doses, 1/1½; 36 doses, 2/9; 60 doses, 4/6. Of leading Chemists and Patent Medicine Stores everywhere throughout the World.

SOLE MANUFACTURERS—
SQUIRE, FOX & CO.
Bloomsbury Mansion, London.

PORTABLE.
See Testimonials from
(NEURALGIA)
Richd. Witherby, Esq.
Col. J. Feist, R.E.
(FACEACHE)
Mrs. J. Vince
(CRAMP)
Rev. Henry Briant

Sold by leading Chemists everywhere, in Pink Packets, bearing the Trade Mark, at 1*s*. 1½*d*., 2*s*. 9*d*., and 4*s*. 6*d*., Pamphlets of *authenticated* Testimonials accompanying.

"KOPTICA."

LUMBAGO, SCIATICA, NEURALGIA, FACEACHE, TIC-DOLOREUX, CRAMP. The surest and SAFEST remedy for these maladies in their severest and most chronic forms. "No Family Medicine Chest should be without."

HIGHLY RECOMMENDED by the MEDICAL PROFESSION. Prepared in the form of a Powder, occupies very little space, and may easily be carried in the pocket. The silver measure full contains one dose which is taken four times a day, well dissolved in half a wineglass of cold water. KOPTICA assists digestion.

The famous Antiseptic "PECCO" LOZENGES, "THE SMOKERS' GREATEST BOON." Sold by all Chemists and Tobacconists, in Boxes at 3d. each.

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Counter Bills and Show Cards sent Free, with Name and Address at foot,



on application through any of the Wholesale Patent Medicine Houses.

The high character of this old Medicine as a sure remedy for **PULMONARY and BRONCHIAL DISORDERS**, is repeatedly confirmed by the gratifying letters Mr. Powell receives from those who have experienced its great worth.

Prepared by THOMAS POWELL, 4 Albion Place, Blackfriars Road, London.

And sold by Chemists and Vendors of Medicine at 1s. 1½*d. and* 2s. 3*d. per bottle.*





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EUCALYPTUS AND MENTHOL PENCILS

One dozen on a card. Retail Price, 1/1½. Wholesale Price, 7/ per doz.

THE "ACME" BRAND MENTHOL CONES

(Made from Pure Japan Menthol),

IN FANCY TURNED WOOD BOXES. PRICE 5/- DOZEN NETT.

MANUFACTURED ONLY BY

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SPECIAL QUOTATIONS TO LARGE BUYERS.



BY HER MAJESTY'S ROYAL LETTERS PATENT.

DOLRU

NEURALGIA'S DEATH-BLOW.

MAGIC DEATH TO ALL PAIN.

"DOLRU" is a certain Cure for SPASMS, CRAMPS, DIARRHŒA, &c. *DOSE—A Teaspoonful every ten minutes.*

DOLRU" is the most reliable remedy for the PREVENTION and CURE of CHOLERA. *DOSE—A Teaspoonful every five minute.*

This new compound, "Dolru," entirely cures Neuralgia and Toothache in a few minutes. The Proprietor will *Challenge the World* to produce a genuine case of Neuralgia in the *head* or *face*, or Toothache that cannot be cured by "Dolru" when used as instructed in the circular accompanying each bottle. "Dolru" also cures Rheumatism, Gout, Sciatica, and Lumbago, in a *few hours.* Use "Dolru" only, you will then *soon be cured.* "Dolru" strengthens the nerves exceedingly, and is *perfectly harmless.* Persons of the *most delicate constitutions* can use it without the least hesitation.

"Dolru" can be obtained *wholesale* and *retail* of the Patentee and Manufacturer, HENRY FRANCIS MILLS, 30 St Anne's Road, Notting Hill, London, W.; and of the leading Wholesale Chemists and Medicine Vendors. Sold in bottles at 1*s.* 1½*d.* and 2*s.* 9*d.* each.

HENRY FRANCIS MILLS,

Sole Patentee of "Dolru" for England and the United States of America.

DR. LALOR'S PHOSPHODYNE

The ONLY MEDICINE of the KIND AWARDED A CERTIFICATE of MERIT at the CALCUTTA INTERNATIONAL EXHIBITION, 1883-4,

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Will keep in any Climate, and is therefore specially adapted for SHIPPING, and wherever introduced COMMANDS A LARGE SALE.

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Dr. LALOR'S PHOSPHODYNE makes an agreeable Beverage with Water Only. INVIGORATING and VITALISING the BLOOD with the PHOSPHORIC or active Principle of Life.

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Are old-established, registered, and protected under the Trade Marks Act, as having been prepared before *August*, 1875. They are an excellent aromatic tonic, palatable, and command a good sale. Put up in bottles to retail at 1/1½ and 2/3 per bottle, also in packets containing ingredients for making the same at 7½*d.* and 1/1½ per packet.

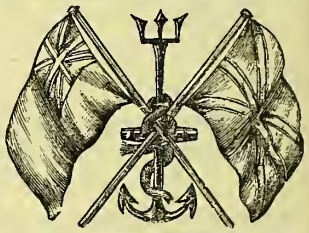
Show Tablets and Counter Bills with testimonials supplied. Each Bottle and Packet bear, as Trade Marks, "King Alfred's Head" and "British Flags." Beware of Infringements.

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Special agents appointed in all parts. More wanted for unrepresented localities. Obtainable direct from ALFRED KING & CO., who will forward all particulars on application.

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W. F. SMITH'S TASTELESS DANDELION ANTIBILIOUS PILLS,

Price, 1s. 1½d. and 2s. 9d. per Box.

Registered.] TARAX. AND PODOPH. [*Registered.*

A NON-MERCURIAL LIVER MEDICINE, specially useful to the habitually constipated, and safe for all ages.

Special caution needed against injurious imitations. Worthy of trade notice. Reliable, and rapidly increasing in public acceptance.

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To be had of the usual Houses at Home and Abroad.

THE RED CROSS CAPSULES,

IN BOXES, 1/- EACH,

Are warranted to contain pure Balsam Copaiba, and are made with Flexible Gelatine; also

THE RED CROSS PACKET,

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The greatest cure for Urinary Ailments.

These Medicines being advertised in over 500 Newspapers, Chemists and Patent Medicine Dealers are advised to keep them in Stock. Registered at Stationers' Hall by the Proprietors,

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PROPRIETARY CAPSULES, of any description, made to order for Druggists or Shippers.

HOLLOWAYS PILLS & OINTMENT

Have the Largest Sale of any Medicine in the World.

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And sold at 1s. 1½*d.*, 2s. 9*d.*, 4s. 6*d.*, 11s., 22s., *and* 33s. *each Box or Pot.*

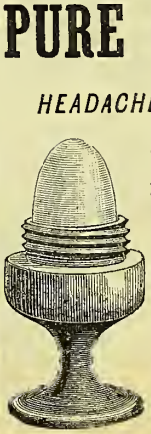
Chemists and Druggists selling "Holloway's Pills and Ointment" can, on application to the above address, or to the Wholesale House with whom they deal, be supplied free of charge with Handbills and Posters with their name and address printed at foot.

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PURE MENTHOL CONES,

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SPECIALITY BOXES.

The lids remove, and the box serves as a holder for the Cone.

In Fancy Hardwood Boxes, 7s. per dozen.

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N.B.—Prices Reduced to 7s. and 3s. 6d. per doz.,

For the Pure Menthol Cones. Exempt under the Act.

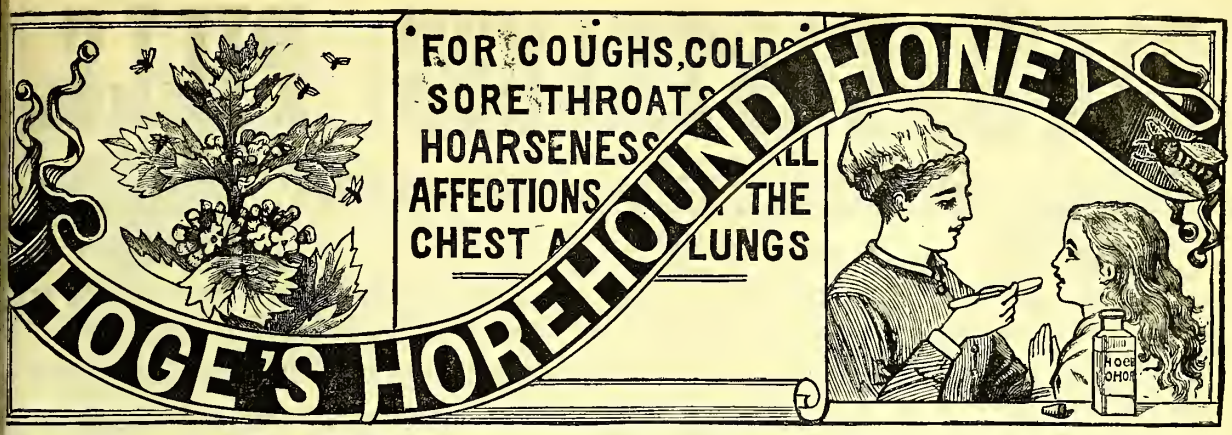
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BEE PASTURAGE.

NEW countries, where the natural luxuriance of plants is not checked by the grazing of domestic animals, are particularly favourable to bee culture, and when Mr. Hoge first visited California, he found it was one sweet bee-garden throughout its entire length, north and south, and all the way across, from the snowy Sierra to the ocean. Wherever a bee might fly within the bounds of this virgin wilderness—through the forests, along the banks of the river, along the bluffs and headlands fronting the sea, over valley and plain, and deep leafy glen, or far up the piney slopes of the mountains, throughout every belt and section of climate—bee-flowers bloomed in lavish abundance. During the months of March, April, and May, what is known as the bee-belt of Southern California is one smooth continuous bed of honey-bloom so marvellously rich that, in walking from one end of it to the other, a distance of more than four hundred miles, your feet would press more than a hundred flowers at every step.

Extending far out in the vast prairie, its unbroken bosom is often found to be one perpetual carpet of horehound flowers, lasting from spring until autumn. All the seasons are warm and temperate, so that honey never ceases to flow from this plant, which yields a profusion of blossoms almost unequalled in the vegetable kingdom. We can judge of their luxuriance, when there grows upon a slender, unobtrusive little bush upwards of 3,000 blossoms, five-eighths of an inch in diameter. Each of these are reservoirs that yield the most wonderful remedy in the world for the cure of coughs, sore throats, sore lungs, &c.—horehound honey. These miniature laboratories stamp with faultless certainty this honey with a colour and flavour peculiar to itself.

The work of the honey-bee is to gather the sweet treasure so divinely prepared, and bear it off, saying to suffering humanity, "Eat! It is the soul of the Blossom."

HOME TESTIMONY.

No Medicine ever came before the public with such unquestionable recommendations and distinguished patronage as "Hoge's Horehound Honey." It has proved a veritable revelation to all who have tried it.

THE LORD MAYOR OF LONDON ORDERS IT.

Mansion House, London, E.C.,
September 28, 1883.

The LORD MAYOR would thank Messrs. W. M. HOGE & Co. to send him half-a-dozen of their "Hoge's Horehound Honey," which has been *well recommended* to him.

THE PRIMA DONNA.

Hawthorn Lodge, Finchley New Road, N.W.,
March 30, 1883.

Messrs. W. M. HOGE & Co., London.

Gentlemen,—I have much pleasure in stating that I consider your "Horehound Honey" the most wonderful remedy I have ever tried, possessing properties which are nothing short of marvellous, for the cure of affections of the throat and chest. I shall never be without a bottle of "Horehound Honey." Yours very truly,
MARIE ROSE-MAPLESON.

Your Honey is delicious.
ELLEN TERRY.

67 Warwick Road, Maida Vale, W.,
October 5, 1883.

Messrs. W. M. HOGE & Co.

Dear Sirs,—I have great pleasure in bearing testimony to the excellence of your "Horehound Honey" for the throat and the voice. I have used, and use it now at intervals, as I found it, for my voice, of great value, and, therefore, I can recommend it from my own experience, especially to singers. Yours truly,
LOUISE LIEBHART.

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Messrs. W. M. HOGE & Co.

Gentlemen,—I was troubled for a long time with a bad cough, which I feared was becoming chronic. I used your "Horehound Honey," and gave it a fair trial. I am happy to be able to tell you that it quite relieved me, and I recommend it as a certain cure. Yours truly,
GEO. M. SMYTHE.

7 Suffolk Lane, Cannon Street, E.C., London,
April 20, 1883.

Messrs. W. M. HOGE & Co., London.

Gentlemen,—Having suffered for many years with irritation of the throat and chest, I never found any remedy to relieve the irritation until I purchased a bottle of your "Horehound Honey," which I did a few days since. I want to inform you it had a wonderful soothing effect, affording relief at once. Please send me one dozen bottles, and oblige
Yours truly,
G. F. BLACK.

W. L. BRIGHT, ESQ., son of the RIGHT. HON. JOHN BRIGHT, M.P., said Hoge's "Horehound Honey" cured his father of a bad cough.

REV. C. D. KINGDON says "it makes the voice clear and pleasant, and takes away all that huskiness in the throat which is so uncomfortable to preacher and congregation."

SUPPLIED BY ALL WHOLESALE DEALERS
AND BY
HOGE'S HONEY CO., Ld., 12 GREAT EASTERN STREET, E.C.

COX'S TASTELESS PILLS.

BY ROYAL LETTERS PATENT,

Dated and Sealed April 13th, 1854.

Surgeons and Chemists supplied with an excellent Aperient Pill (the formula for which will be forwarded), covered with a thin non-metallic film, rendering each Pill perfectly tasteless, at 1*s.* a gross, Postage free.

Any formulæ dispensed and covered, and samples, with list of pills, from 500 different forms, which are kept in stock, will be forwarded free on application.

They were introduced to the medical profession by the present proprietors a quarter of a century ago, and many thousands of unsolicited testimonials have been received from the highest medical authorities, and are now used, and have been used for many years past, by the largest and best conducted hospitals and dispensaries. Of course, a success like this has led to many imitations, and highly-varnished pills, made to resemble ours, have been introduced by some unscrupulous people. Many of these pills pass through the stomach unaltered, and a useful invention is thus likely to be brought into disrepute.

The most impudent assertions are made by some of these people, who combine, in one incongruous whole, the trades of druggists' sundrymen, retail druggists, soap-makers, and horse and cattle medicine vendors.

We make and sell nothing but pills, and have testimonials from regular customers, residing in China, Australia, and every part of the civilised world, as well as from friends in almost every town and village in the kingdom; and our trade, which is constantly increasing, is perhaps four or five times as large as all the rest of our copyists' put together.

The following are some of our Prices FOR CHEMISTS ONLY:—

We strongly recommend our Aperient Pills as a good general saleable Pill. These, with the Pharmacopœia Pills quoted below, are sent out to every part of the United Kingdom in half-pound parcels, package, postage, and carriage free on the same day as the order is received; and, to avoid booking and other expenses, 1*d.* in the Shilling will be allowed if Stamps or P.O.O. are remitted with order.

Our Pills can also be obtained from any Wholesale Druggist. In ordering, please specify "Cox's Tasteless Pills."

QUOTATIONS FOR OTHER PILLS ON APPLICATION.

No. in Catalogue.	Pil. Aperiens et Cathartic.	Prices per Pound in Four or Five Grain Pills. Coated.	Uncoated.
1 & 2	Pil. Aper. (Cox) c. Cal.....	6/	5/
3 & 4	,, ,, (Cox) sine Cal....	6/	5/
193	,, Cathartic Fort. (Cox)...	6/	5/
332	,, Cochia	5/	4/
	PILLS OF THE BRITISH PHARMACOPŒIA.		
6	Pil. Aloes. Barb.	6/	5/
8	,, ,, et Asafœtidæ.....	5/	4/
9	,, ,, et Ferri	5/	4/
10	,, ,, et Myrrh.	12/	11/
7	,, ,, Soc.....	6/6	5/6

No. in Catalogue.	Pills of the British Pharmacopœia.	Prices per Pound in Four or Five Grain Pills. Coated.	Uncoated.
122	Pil. Asafœtidæ Co.....	6/6	5/6
66	,, Cambog. Co.....	6/	5/
24	,, Coloc. Co.....	16/	15/
30	,, ,, et Hyos.	13/	12/
62	,, Ferri Carb.	5/	4/
71	,, Hydrarg.	5/	4/
92	,, ,, Subchlor. Co. ...	6/6	5/6
77	,, Ipecac. c. Scillæ	7/	6/
99	,, Plumbi c. Opio	12/	11/
104	,, Rhei Co.	7/	6/
119	,, Saponis Co.	12/	11/
321	,, Scammon. Co.	22/	21/
115	,, Scillæ Co.....	5/	4/

The Registrar of Trade Marks (after giving the usual public notice, prescribed by Parliament, to allow of opposition) has granted us the above "Trade Mark," thus officially recognising us as the "*Original Makers of Tasteless Pills*," and no Pills will be sent out without this Mark on all bottles or packages.

ARTHUR H. COX & CO.,

TASTELESS PILL MANUFACTURERS,

ST. MARTIN'S PLACE, BRIGHTON.

A WONDERFUL MEDICINE!



TRADE MARK.
No. 1416.

Between thirty and forty years ago a Medicine was introduced to the public, and suffering humanity was invited to try the same.

The Proprietor knew from experience that success was certain, but the human breast is so imbued with prejudice, that it forms one of the strongest barriers to break down and the greatest enemy to overcome before any headway can be made towards the mansion of success. Truth has often proved itself to be "stranger than fiction," and it is a fact as solid as truth that

BEECHAM'S PILLS

have now become one of the leading Patent Medicines of the present day. From north to south, and from east to west, they are to be found in the homes of the rich and the poor. All classes of society use them, and they are by thousands declared to be

WORTH A GUINEA A BOX.

For a Weak Stomach, Impaired Digestion, and all Disorders of the Liver, they act like "MAGIC," and a few doses will be found to work wonders on the most important organs in the human machine. They strengthen the whole muscular system, restore the long-lost complexion, bring back the keen edge of appetite, and arouse into action, with the ROSE-BUD of health, the whole physical energy of the human frame. These are "FACTS" admitted by thousands, embracing all classes of Society, and one of the best guarantees to the Nervous and Debilitated is, BEECHAM'S PILLS have the LARGEST SALE of any Patent Medicine in England.

In South Africa BEECHAM'S PILLS have the largest sale of any Patent Medicine ever introduced into that part of the World.

All Patent Medicine Dealers abroad will find BEECHAM'S PILLS one of the most profitable and one of the best selling articles in the Market. The demand for them is regular, and all Foreign Houses who are desirous of getting a First-class Patent Medicine are respectfully requested to get BEECHAM'S PILLS from the leading Wholesale Houses in England (as no business will be done with any Foreign House by the Proprietor direct).

CAUTION.—The Public are requested to notice that the words "BEECHAM'S PILLS, ST. HELENS," are on the Government Stamp affixed to each Box of the Pills; if not on, they are a Forgery.

Prepared only, and Sold Wholesale and Retail, by the Proprietor,

THOMAS BEECHAM,

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In Boxes, 1s. 1½d. and 2s. 9d. each.

N.B.—FULL DIRECTIONS ARE GIVEN WITH EACH BOX

GOLD MEDAL, FOREIGN EXHIBITION, BOSTON, 1883.

SIR JAMES MURRAY'S
PURE FLUID MAGNESIA.

The ORIGINAL Article, as prepared by the Inventor, Sir James Murray, M.D.

For over 60 years in use as an excellent remedy in cases of

ACIDITY, INDIGESTION, HEARTBURN, GRAVEL, AND GOUT.

Sold by all respectable Chemists, in LARGE-SIZED Bottles (the 1*s.* size containing nearly *Double the quantity* usually sold at that price), at **1/, 2/6,** and **3/6** each.

CAUTION.—Observe that the Signature of the Inventor is on every label.

SIR JAMES MURRAY'S
FLUID CAMPHOR

Is a valuable remedy in cases of Sleeplessness and Weak Nerves. Bottles, **1/** and **2/** each.

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AUSTIN'S PATENT POCKET INHALERS

And Carbolate of Iodine for use therewith are in constantly increasing demand.

Dr. Horace Dobell, in his recent work "On Loss of Weight, Blood Spitting, and Lung Disease," says (at page 124, 2nd edition), in reference to Antiseptic Inhalations,

One of the best means of using these is Austin's Pocket Inhaler."

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Extra Bottles of Carbolate of Iodine, 1/- and 2/- each. Extra Tubulettes, 1/- each, or 5/- per half dozen.

Sold Wholesale by S. MAW, SON & THOMPSON. *See Price List.* And may also be had of all the leading Patent Medicine Warehousemen.

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FEVER TINCTURE
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TONIC MEDICINE.

4s.6d. Size, stamped, **42s.** per doz., 5% monthly account.

Not less than 3 doz., **36s.** per dozen net.

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FOR THE USE OF INVALIDS AND ALL PERSONS AFFECTED IN THEIR LUNGS.

Dr. Wright's (IMPROVED) Pulmonic (EUCALYPTUS) Candles.

"By these blessed candles of the night"—"*Merchant of Venice*," *Act* 5, *Scene I.*

The laboured respiration in Asthma, the harrassing Cough in Bronchitis, and all the distressing Symptoms in connection with diseases which affect the Chest and Lungs are speedily relieved.

The breathing passages become freed, and perfect respiration is soon re-established and maintained, in any room in which one (or more) of these Candles is kept burning.

The sufferer has but to light one of these Candles in the bedchamber before retiring, in order to

ensure a thoroughly good night's rest

from the refreshing and agreeable, though invisible, vapour which it emits.

Overwhelming evidence of these facts is daily being given by the large and increasing numbers of patients who use them.

As to the medicinal and wholesome properties, as well as to the purity of the various substances which enter into the composition of these invaluable Candles, and especially as to their effectual agency to produce a healthy atmosphere in rooms

unusually strong testimony is afforded by the reports of Professors ATTFIELD, STODDART, HEISCH, Dr. PHIPSON, and other eminent Medical and Chemical Authorities; whilst the "Lancet," "British Medical Journal," "Medical Times and Gazette," as well as the other organs of the profession highly extol their virtues, and recommend their use.

Read the Published Testimonials.

DR. WRIGHT'S PULMONIC CANDLES.

TO BE HAD OF ALL CHEMISTS, PRICE 2s. 6d. PER BOX.

WHOLESALE ONLY FROM THE MANUFACTURERS, Messrs. J. C. & J. FIELD, UPPER MARSH, LAMBETH, LONDON, S.E.

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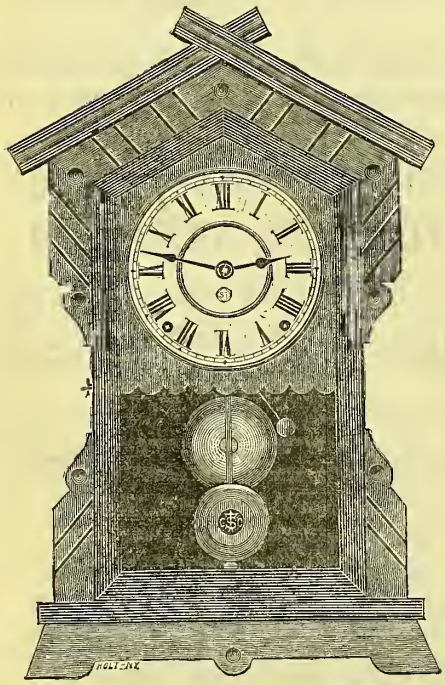
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No. 1.—Silver Electro-plated Tea Pot, on Nickel Silver, handsomely chased, as shown in the cut.

N.B.—We do not bind you to this shape or pattern. We can get you another shape and pattern of equal value.



No. 2.

THE DETROIT CLOCK.

8 day strike.

Walnut Case; Height, 19½ in.; 6-inch Dial.

Manufactured by the celebrated SETH THOMAS COMPANY, of Thomastown, Conn., U.S.A.

No. 3.—Cruet Stand, Silver Electro-plated on Nickel Silver. Five bottles.

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No. 6.—Biscuit Box, Silver Electro-plated on Nickel Silver.

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Exceptions to this offer are:—

A. The Wholesale Houses.

B. Those Chemists or Medicine Vendors whose names we print, as selling our goods, in the pamphlets we ourselves distribute from house to house, in towns of over 20,000 inhabitants.

The one gross of "EXTRACT" can be bought from ourselves in one lot, or from a wholesale house in any number of lots.

If a Chemist buys six dozen "GORDON'S EXTRACT" by the 30th of March, 1885, and then six dozen on the next day, *i.e.*, 31st March, 1885, he would become entitled to one of these presents, or, of course, before if he completes the purchase of one gross at an earlier date.

Printed matter for circulation among customers, and printed with name and address, sent free of charge and carriage paid, if prompt and careful distribution, without waste, is promised. When writing say how many books are required, and send printed label or heading to prevent errors in printing.

PRICES.

"GORDON'S EXTRACT" (to retail at 2s. per bottle),

18s. per dozen,

Subject to 15 per cent. discount on orders for not less than six dozen.

TERMS CASH.

Cheques crossed City Bank, Ludgate Hill Branch. P.O. Orders made payable to Gordon & Co., at Head Office, London, and crossed. Free delivery.

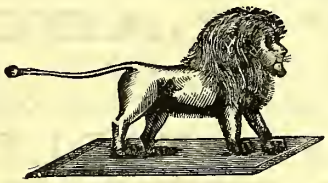
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AMPUTATION AVOIDED.

THE KNIFE SUPERSEDED.

TRADE MARK.
REGISTERED OVER ALL THE GLOBE.



TRADE MARK.
REGISTERED OVER ALL THE GLOBE.

E. BURGESS'

LION OINTMENT & PILLS

Cure the worst and most obstinate cases of Ulcers, Abscesses, Cancers, Tumours, Polypi, Carbuncles, Piles, Poisoned Wounds of all kinds (**including Dog and Venomous Bites**), and every form of Eruption and Skin Disease; also Ulcerated and Cancerous Affections peculiar to Females, without the aid of Lancet or Knife. Numbers have been cured after leaving various London Hospitals as incurable, or curable only by amputation.

The following are specimens of Testimonials received. A list of over sixty, each bearing full name and address, is wrapped round each box.

ERSKINE HOUSE, NEAR TIDAL BASIN, VICTORIA DOCKS: Dec. 31, 1883.

DEAR SIR,—I beg to inform you I have not a spot about me, and I believe you are an instrument in the Almighty's hands to do a world of good for your fellow-creatures. Anyone to have seen me this time twelve months, and see me now, would say it was the greatest miracle ever made in skin disease. I have had spots on me for about forty years, have taken medicine of every description, baths, &c., &c., until November, 1882, and nothing ever could touch it. I was then recommended to use the Lion Ointment and Pills as a certain cure, and I found them the masterpiece of the world. I have consulted great men, and they could not touch it. People must not be afraid of using the Lion Ointment: the more it pinches them the more it is drawing the disease out—only persevere, and the Lion Ointment and Pills will do their work. Now, God bless you in your undertaking.—From yours faithfully,

MR. BURGESS. SILVESTER STONEHOUSE STUART.

ALMA ROAD, next door to EAST HILL HOTEL, WANDSWORTH, late 2 BOLTON ROAD, GROVE PARK, CHISWICK, MIDDLESEX: February 7, 1883.

DEAR SIR,—I am happy to forward to you the following testimonial of the great value of your Lion Ointment and Pills. Through the ill-treatment of my husband I have been suffering with poisoned blood, and, in consequence, a large abscess formed in my neck, also syphilis affecting my leg. I have, too, been suffering many years from a diseased hip. I consulted several physicians, who said that I should not recover unless I had the bone taken out. Last May, 1882, I was advised to use your Lion Ointment and Pills; by so doing I can scarcely describe the benefit I received in a very short time, and I am happy to tell you that they saved my life, and I am now perfectly cured. Hoping through my case your wonderful Ointment and Pills may get well known for the benefit of my poor fellow-creatures. You are at liberty to refer anyone to me at any time should you wish.

I am, Sir, yours respectfully, ELIZABETH STILLWELL.

TO MR. E. BURGESS.

PROSPECT HOUSE, AMERSHAM COMMON: June 25, 1881.

SIR,—Please send me by return one box of your Pills. The box of Lion Ointment I sent for is for Erysipelas in the face; do you think it suitable? [*Most effectual.*] Also send me another box of the Lion Ointment, I have enclosed stamps for the same. I have had Ointment from you before through a friend of mine. I had been suffering from a small tumour in the head for some years, and had the advice of medical men, and all said I must have it taken out; but, on applying your Ointment, in a fortnight it drew it out and made a complete cure of it.—Yours respectfully,

TO MR. E. BURGESS. MRS. E. HILL.

ELM LODGE, WIMBLEDON PARK, late 26 BALLANTINE STREET, YORK ROAD, WANDSWORTH: January 17, 1881.

DEAR SIR,—Having attended St. Thomas's Hospital for nine months, suffering greatly with a *tumour*, extending from the back of the ear to the collar bone, affecting the shoulder, and receiving not the least benefit, I was earnestly persuaded to give your Lion Ointment a trial. By so doing I can scarcely describe the benefit I received in a very short time. I am truly thankful to state I am quite well and am able to resume my duties without trouble or inconvenience. I was also attended by several doctors during the five years I have been suffering from the tumour, not having received the slightest benefit. Dear Sir, you are at liberty to publish this, or send anyone to my residence for satisfaction.—I am, Sir, yours most respectfully,

TO MR. BURGESS. MRS. H. GRIFFIN.

[The above was a most serious case. Photographs of the same, uncured and cured, and the Fungus and Diseased Bone drawn away by the Ointment, can be seen on application at 117 High Holborn, W.C.

7 SHAFTESBURY PLACE, ALDERSGATE STREET, E.C.: May 20, 1882.

SIR,—It gives me great pleasure to add to your numerous testimonials. For four years I suffered with a very bad leg, and attended St. Bartholomew's, the University, and Dalston Hospitals, and various Dispensaries, where they told me it was a cancerous ulcer, incurable, *that I must lose my leg.* However, being recommended to use your Lion Ointment, I did so, and in three months the cancer was drawn away, and my leg made quite well.—I remain, yours &c.,

TO MR. E. BURGESS. LUCY IBBS.

VERULAM, PORT NATAL, SOUTH AFRICA: March 1, 1881.

DEAR SIR,—I feel it my duty to thank you for the wonderful way in which your Lion Ointment has cured my hand of skin disease, which I had endured for over nine years. When I was residing at St. John's Hill, Wandsworth, I purchased a box of your Ointment, and by the end of the fourth week, it had perfectly cured my hand, and I have seen nothing of it since. Previously to applying your Ointment, I had been to my own doctor at Wandsworth with it, and also to several Skin Disease Hospitals in London, but to no avail. They said it could not be cured, and must, therefore, be endured; but, as I said before, your Ointment has cured it. When I came out here (twelve months ago), I brought some with me, and am glad I did, for I have found it very useful. I gave some to a gentleman who had his legs covered with Natal sores, and could not walk for them, and it has perfectly cured them. I have been obliged to send home to my friends to send me out some, which I expect shortly to arrive, for, as I said before, it is very useful; in fact, cures everything in which I have tried it. If only you had an agent here, I would recommend it to everybody.—I am, dear Sir, yours, &c.,

MR. BURGESS. SUSAN S. SMITH.

Various Cancers, Tumours, Diseased Bones, &c., extracted by the LION OINTMENT AND PILLS; also Photographs of Cases Cured are on view at 117 High Holborn. A guarantee of their virtue.

A good sale for this remedy always follows its introduction by proof of its efficacy. Foreign Houses will do well to order samples through their English agents, also supplies of Bills, PHOTOGRAPHS OF CASES CURED, &c., which ALWAYS ensure a connection.

The Ointment is put up in air-tight, grease-proof boxes, and will keep good any length of time in any climate. The Pills are in stout wooden boxes, and also retain their virtue for years. Prices, 1*s.* 1½*d.*, 2*s.* 9*d.*, 4*s.* 6*d.*, 11*s.*, and 22*s.* each.

USUAL WHOLESALE TERMS.

E. BURGESS,

117 HIGH HOLBORN, and KINGSGATE ST., LONDON, W.C.

Late WANDSWORTH, S.W.

JAMES EPPS & CO.'S
HOMŒOPATHIC MEDICINES

ARE SUPPLIED IN BOTTLES

FULLY LABELLED,

WITH PRINCIPAL USES, DOSE, AND REPETITION.

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CALCUTTA EXHIBITION, TWO GOLD MEDALS AWARDED TO

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SPECIALITIES:

SYRUP FERRI PHOSPH. CO., PARRISH'S (SPECIAL GOLD MEDAL for this), and all Chemical Syrups, and Liquors for preparing them.

Ferri Quiniæ Citras and all Scaled Preparations.
Quinine and all Cinchona Salts.
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Pepsine and Pepsine Wine.
Dec. Sarsæ Co. Conc. 1-7, Liquor Bismuthi, P.B.
Extract of Malt (Prep. in Vacuo).
Quinine Wine, Quinine and Iron Tonic.

New Essence of Lemon, Orange, and all Essential Oils
NEW SEASON'S NON-FREEZING COD-LIVER OIL (the finest that has been made for years).
Extra Cream Olive Oil, bulk and bottled.
All Fruit, Soluble, and Artificial Essences.
Flavouring Essences and Fruit Syrups.

Samples and Lists are forwarded free on application where we have accounts open, or to any Wholesale Buyers.

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STAND, INTERNATIONAL HEALTH EXHIBITION, No. 165, SOUTH GALLERY, where original Diplomas and Certificates will be submitted, and explanations respecting continual misrepresentation given. Remember Stand 168, Main Building.

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1.—M. Hoff has no longer an agent in London.

CAUTION.—See that you get the right old introduced article, there being now others of similar name in the market.

2.—Be careful not to be misled by pamphlets and circulars into buying any other preparation but the OLD GENUINE and original HAMBURG HOFF'S MALT EXTRACT.

3.—The genuine and original HAMBURG HOFF'S preparation has NO PORTRAIT on the label. The Signature LEOPOLD HOFF has to be on all labels.



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20 years before the Public of Great Britain.

Letter from the First Physician of Her Majesty the Empress Augusta of Germany, Queen of Prussia, to

LEOPOLD HOFF, Esq., Hamburg.

Dear Sir,

Her Imperial and Royal Majesty has commanded me to inform you of Her Imperial Majesty's pleasure to give "YOUR Preparation" a trial. Please send, etc. Allow me to present you with the expression of my highest consideration with which I remain, Yours truly,

(Dr.) SCHLIEP.

Her Imperial Majesty's First Physician and Medical Adviser.

Baden Baden, October 3rd, 1883.

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In consequence of the growing demand for our *Dispensing* Bottles we have found it necessary to increase our powers of production, and are now in a position to execute orders for same promptly.

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FOR HOME TRADE,	MONTHLY, a 12-page Circular, containing full particulars of our Goods, in which attention is invited to new kinds as they are added, and prominence given to goods in season. QUARTERLY, Price Current of Dispensing, Feeding, Perfumery, and Chemists' Bottles and Sundries. AT INTERVALS, Price Lists of other goods as mentioned above, in separate sections for different trades. AT INTERVALS, Illustrated Catalogues of all our goods.	**FOR HOME TRADE.**
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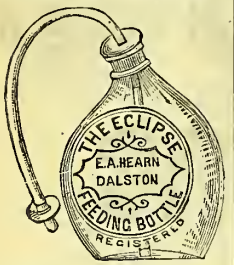
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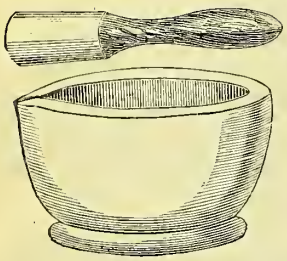
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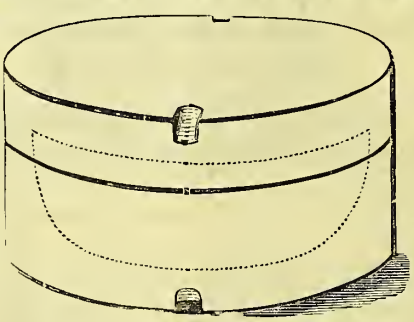
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PRICES.	18/-	18/-	18/-	20/-	22/-	24/-	27/-	34/-	42/-	54/-	66/- per Gross.

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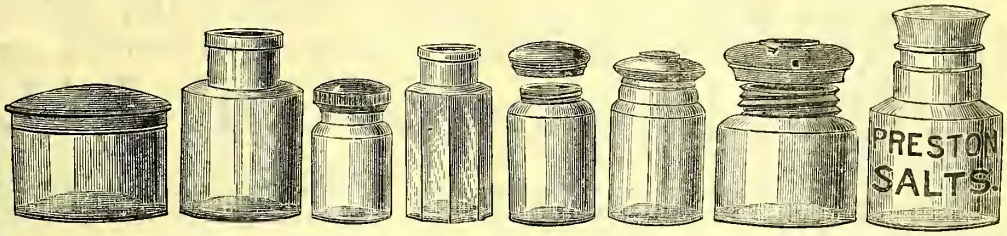
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Full information as to price, &c., can be obtained at 83 UPPER THAMES STREET.





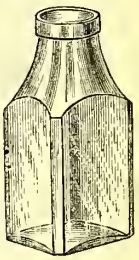
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SAMPLES ON APPLICATION.

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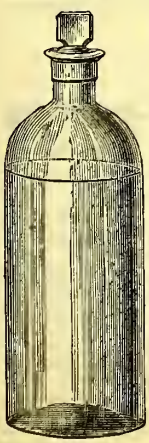
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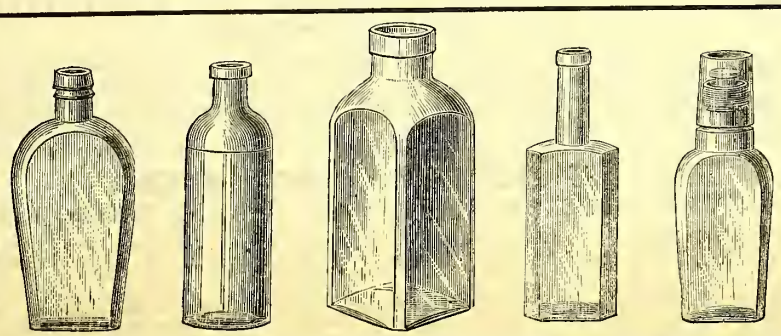
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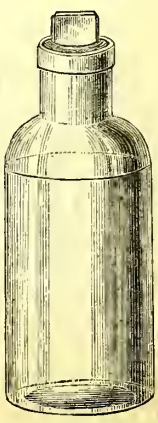
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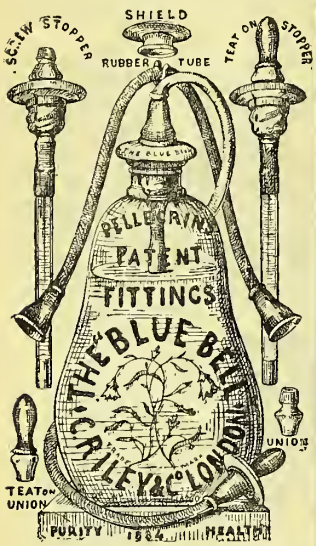
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1 & 2-ounce	6/6	per gross	14-ounce	15/-	per gross
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6 & 8 „	8/6	„	20 „	22/6	„
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Beg to state that they have *greatly improved the quality of their Bottles*, and supply them at the following greatly reduced prices—
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3 and 4 ounce ..	8/ per gross.	12 ounce ..	13/ per gross.
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½ ounce and under	4/ per gross.	1½ ounce ..	5/ per gross.
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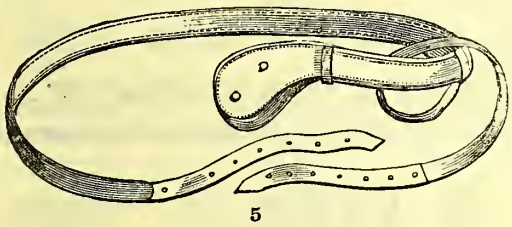
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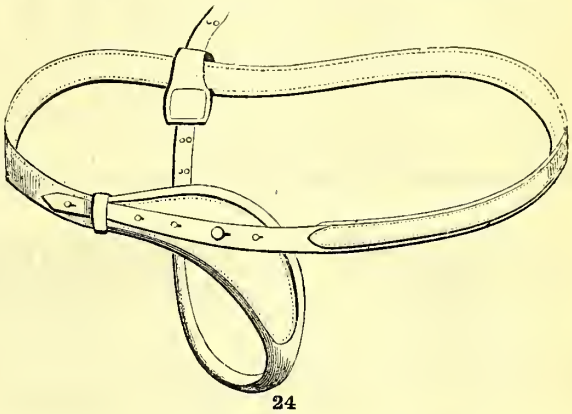
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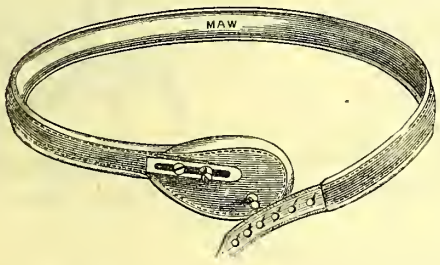
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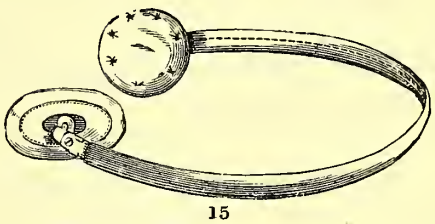
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5


24



4


15

Circular (Fig. 5), 14 to 40 inches—

		Single		Double
Covered with Basil and Moleskin	per doz.	21/	...	34/
Covered with Roan and Moleskin	„	16/	...	30/
Covered with Blue or Red Morocco and Moleskin	„	24/	...	40/

Circular (Fig. 4), with Slide Pad, 30 to 40 inches—

Covered with Blue or Red Morocco, and Lined with Calf	per doz.	32/	...	54/

Circular Scrotal (Fig. 24), 30 to 40 inches—

Covered with Basil and Moleskin	per doz.	48/	...	84/
Covered with Roan and Moleskin	„	40/	...	68/

Salmon & Ody's (Expired Patent) (Fig. 15), 30 to 40 inches—

Covered with Calf and Chamois Leather ...	per doz.	27/	...	54/
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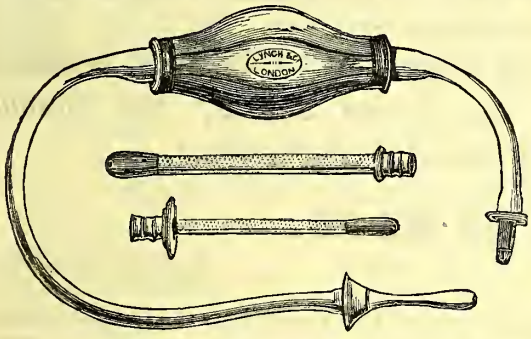
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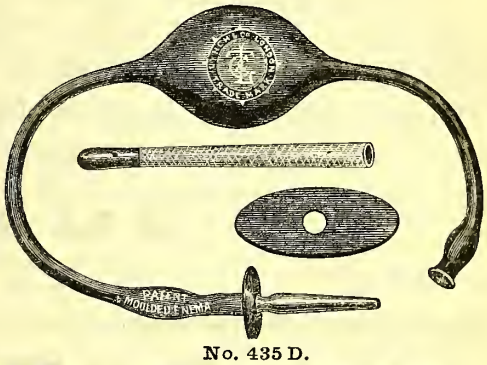
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No. 436.



No. 435 D.

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		£	s.	d.
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433B.	Ditto, with elastic-gum vagina pipe and leather shield ... ... „	1	10	0
434.	Ordinary Higginson's, barrel shape, with bone rectum pipe, elastic gum vagina pipe, to plug on, and patent leather shield, in slide cedar box ... ... per doz.	1	12	0
434AA.	Ditto, fitted with vagina pipe with reversed current ... ... „	1	16	0
434A.	Ditto, ditto, with disconnecting mounts ... ... „	1	14	0
435C.	LYNCH'S (Higginson's principle), black, green, red or white india-rubber, requiring no metal mounts, in one continuous piece, *warranted not to split*, fitted with vulcanite rectum pipe, in slide cedar box ... per doz.	1	10	0
435D.	Ditto, with elastic-gum vagina pipe, and leather shield, in slide cedar box ... ... „	1	15	0
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437.	Ditto, in slide cedar box ... ... „	2	3	0
437A.	LYNCH'S PERFECTION, in mahogany box ... ... „	2	17	0
437B.	Ditto, in slide cedar box ... ... „	2	10	0
437C.	Ditto, in superior mahogany box, with lock and key ... ... „	3	12	0
437D.	Ditto, in oval boxes of cloth and leather ... ... „	2	15	0
437E.	LYNCH'S COMPLETE HOUSEHOLD SYRINGE, consisting of Higginson's Enema with disconnecting mounts, fitted with bone bulb-pointed rectum pipe for adults, elastic-gum rectum pipe with bone shield for children, elastic-gum vagina pipe, and bone pipes for ear, eyes, and nose, in mahogany box ... ... each	0	7	6

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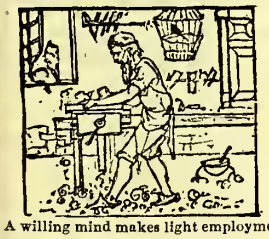
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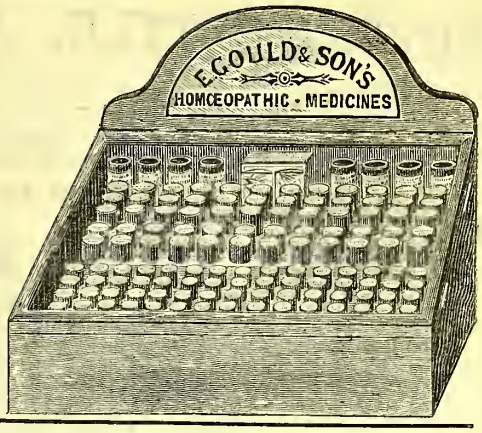
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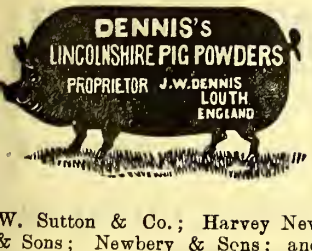
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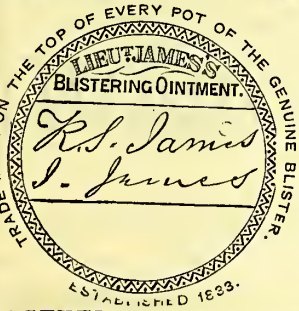
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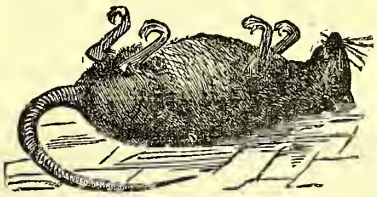
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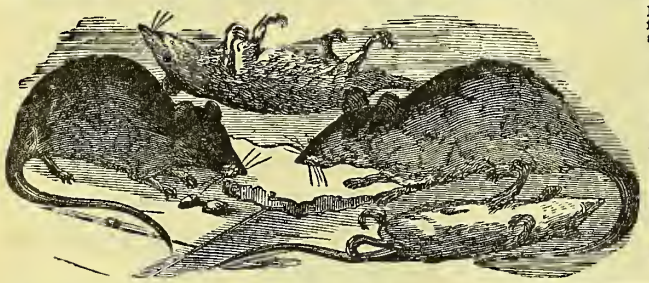
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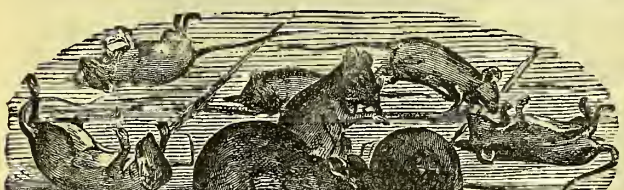
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FOR ALBUMEN AND SUGAR.
QUALITATIVE AND QUANTITATIVE.
Chemists are requested to correspond with the Makers,
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ESTABLISHED OVER FIFTY YEARS.

For Indigestion, Bilious and Liver Complaints, Sick Headache, Giddiness, Wind, Spasms, Dropsy, Fits, Gravel, Pains in the Back and Loins, and all disorders of the Stomach and Bowels.

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Makes Starched Linen like new. Does not stick to spider-like Materials. Once tried always wanted. Used in the Royal Laundries. Sold everywhere, in Packets, 1*d*., 3*d*., 6*d*., and 1*s*. each. Write for quotations.

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THE LION GOUT & RHEUMATIC MIXTURE
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PREPARED ONLY BY THE
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Salt of every description packed to suit the Trade in Boxes, Jars, Bottles, Linen Bags, and Strong Prepared Paper Satchels.
Apply as above. Eleven Prize Medals Awarded.

KNOTTING OR **WHITE HARD SPIRIT VARNISH.** CASH PRICE: **8/6** PER GALLON. Bottles and Casks Free.
The Best KOOTTING, the Best Clear Spirit VARNISH, or the Best PAPER VARNISH ever invented; all Clear, and nearly Water White. Dry in 5 minutes; Insoluble in Turps or Oil; Waterproof.
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All kinds of Crucibles in Plumbago, Clay, &c., Single and in Nests.
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The NEW CARBOLIC V.R. SANITARY CO., Ld.,
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Pink Carbolic Powder, No. 6, in 1-cwt. bags, 6/6 per cwt.; Do., in 1-lb. packets, 12/ per gross; Do., No. 1 quality, in 1-cwt. bags, 8/ per cwt.; Do., in 1-lb. packets, 15/ per gross; 6*d* Boxes, 3/3 per doz.; 9*d*., 4/6; 1*s*., 5/6. Less 10 per cent. for Cash on delivery.
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(In Boxes at 1/1½, 2/9, & 4/6 each.)
FOR ALL DISORDERS OF THE STOMACH, LIVER AND BOWELS, &c.
Safe for Young or Old, and rapidly increasing in public estimation.
THE ORIGINATORS AND SOLE PROPRIETORS,
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CHARCOAL.
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Pure Charcoal, selected and specially prepared for Medicinal, for Deodorising, and other purposes, by
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Pumice, lump and powder; Fuller's earth, lump and powder, and in packets. Lowest prices in the trade. Write for quotations and samples of these and other goods.
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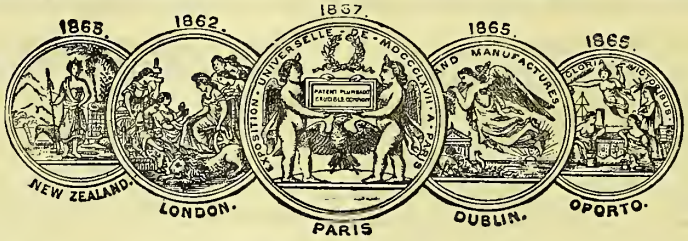
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SALAMANDER-CRUCIBLES,

Patented in Great Britain, Germany, France, Italy, United States, &c., &c.
ARE NOT AFFECTED BY MOISTURE OR FROST.
The only Plumbago Crucibles that require NO ANNEALING.

Each number contains about 2 lbs. English (thus, No. 25=50 lbs. capacity), and are so stamped.

No. 5/0..	per doz.	£0 0 8	No. 5 ..	per doz.	£0 15 0	No. 25 ..	each	£0 6 3	No. 90 ..	each	£1 2 6
4/0..	„	0 1 1	6 ..	„	0 18 0	30 ..	„	0 7 6	100 ..	„	1 5 0
3/0..	„	0 1 4	8 ..	„	1 4 0	35 ..	„	0 8 9	120 ..	„	1 10 0
2/0..	„	0 2 0	10 ..	„	1 10 0	40 ..	„	0 10 0	150 ..	„	1 17 6
0..	„	0 2 6	12 ..	„	1 16 0	45 ..	„	0 11 3	200 ..	„	2 10 0
1..	„	0 3 0	14 ..	„	2 2 0	50 ..	„	0 12 6	250 ..	„	3 2 6
2..	„	0 6 0	16 ..	„	2 8 0	60 ..	„	0 15 0	300 ..	„	3 15 0
3..	„	0 9 0	18 ..	„	2 14 0	70 ..	„	0 17 6	400 ..	„	5 0 0
4..	„	0 12 0	20 ..	„	3 0 0	80 ..	„	1 0 0	500 ..	„	6 5 0

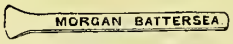
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Process Patented.



12-in. SALAMANDER COVERS, 1*d.* per No.



12-in. STIRRERS, 12*s.* per dozen.



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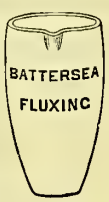
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FLUXING POTS.

IDENTICAL WITH THE FRENCH IN QUALITY, FORM, AND CAPACITY.

No.	Height, inches.	Hauteur, milli.	Diameter, inches.	Diameter, milli.	Per dozen Crucibles.
0	2	·050	1⅛	·030	£0 0 4
1	2⅛	·055	1¼	·033	0 0 6
2	2¼	·060	1⅜	·036	0 0 8
3	2⅜	·070	1½	·042	0 0 10
4	3⅛	·080	1¾	·046	0 1 0
5	3½	·090	2	·050	0 1 2
6	3⅞	·100	2⅛	·055	0 1 4
7	4⅛	·110	2⅜	·062	0 1 6
8	4½	·120	2⅝	·068	0 1 10
9	5⅛	·135	2⅞	·074	0 2 4
10	5⅝	·150	3⅛	·080	0 2 9
12	7¼	·185	3½	·095	0 4 9

COVERS TO FIT ALL SIZES.



All sizes upwards can be supplied, but BATTERSEA ROUND are found in use to be superior.

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(Signed) PROF. DR. DÜRRE,
Der Königl Rbeinisch Westfälischen Polytechnischen Hochschule.

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OFFICE OF THE ASSAYER,
SAN FRANCISCO, CAL., April 19, 1877.

SIRS,—I have tested and used the Assay Crucibles and Annealing Cups, and can ith assurance recommend their superior quality and durability.

Respectfully yours, &c.,
O. D. MUNSON, Assayer.

POROUS BATTERY CELLS.



FLAT, WITH EARS.





FLAT.

OUTSIDE MEASUREMENT. PRICES PER DOZEN.

Mark Ⓒ **ROUND.** All sizes made to order.

Diameter.	LENGTH IN INCHES. 3	4	4½	5	5½	6	6½	7	7½	8	9	10	12
1 in.	1/	—	—	—	—	—	—	—	—	—	—	—	—
1½ in.	1/6	—	—	—	—	—	—	—	—	—	—	—	—
1¾ in.	1/6	2/	2/	2/6	3/	3/	—	—	—	—	—	—	—
1⅞ in.	—	2/	2/6	3/	3/6	3/6	4/	4/	4/6	4 6	5/	—	—
2 in.	—	2/6	3/	3/	3/6	4/	4/	4/	4/6	4/6	5/	—	—
2¼ in.	—	—	3/	3/	3 6	4/	4/6	4/6	5/	5/	5/6	6/	—
2½ in.	—	—	3/	3/6	3/6	4/	4/6	4/6	5/	5/	6/	6 6	—
2¾ in.	—	—	—	—	—	4/6	5/	5/	5/6	5/6	6/6	7/	8/
3 in.	—	—	—	—	—	5/	5.6	5/6	6/	6/	7/	7/6	8/6
3½ in.	—	—	—	—	—	5/6	5/6	6/	6/6	7/	7/6	8/6	10/

Mark Ⓒ **FLAT.** All sizes made to order.

No.	Hght.	Width	Depth		Price	No.	Hght.	Width	Depth		Price
1	4½	2⅜	11-16	No ears	4/	23	4⅜	2⅝	¾	—	4/
2	4⅝	2⅜	⅞	—	4/	26	5⅛	4⅜	1	—	8/
4	4⅝	2⅞	⅞	—	4/	28	6⅜	3⅜	1	—	8/
5	4⅜	2⅞	⅞	—	4/	29	6⅜	4⅜	⅞	—	8/
7	4⅜	2⅝	⅞	—	4/	32	8⅛	5⅜	⅞	—	14/
8	4½	2½	13-16	—	4/	34	7⅛	4½	9-16	—	12/
9	5⅛	3⅜	11-16	—	6/	36	5⅛	4⅜	⅞	—	8/
13	5⅜	3⅜	⅞	—	6/	37	5⅜	3⅜	⅞	—	6/
15	6⅜	4	1⅛	No ears	8/	41	4⅜	2⅜	⅞	—	4/
16	6½	4⅜	1	—	10/	42	6½	4	⅞	No ears	8/
19	10⅜	6⅜	1⅛	No ears	24/	52	5½	3⅜	⅞	—	6/
20	14⅜	8	2	No ears	36/	58	5⅜	3⅜	⅞	No ears	6/
21	5⅜	3⅜	⅞	—	6/						

All with ears, unless otherwise stated.
SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

NOTICE.—*Care should be taken in all instances, when ordering, to specify the Crucibles, &c., manufactured by*
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ESTABLISHED 1848.

P. BOURJEAURD,

INVENTOR OF THE

SPIRAL ELASTIC BELTS, STOCKINGS,

And of SUSPENSORY BANDAGES free from Waist Band,

3 GROSVENOR ST., GROSVENOR SQUARE, W. (Three Doors from Bond Street).

BY ROYAL LETTERS PATENT,

PATENT LIFTING INGUINAL HERNIA TRUSS,

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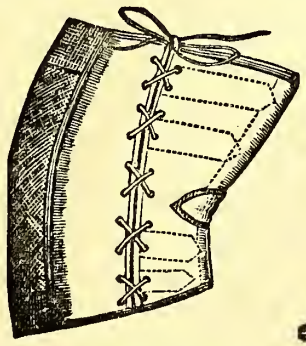
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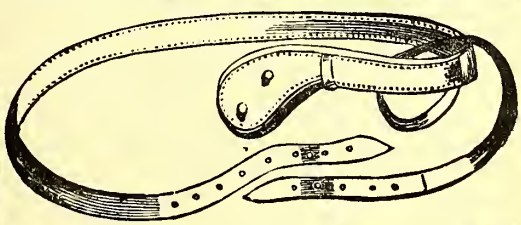
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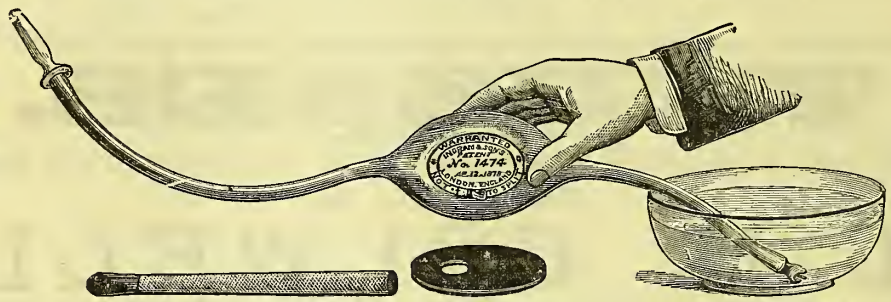
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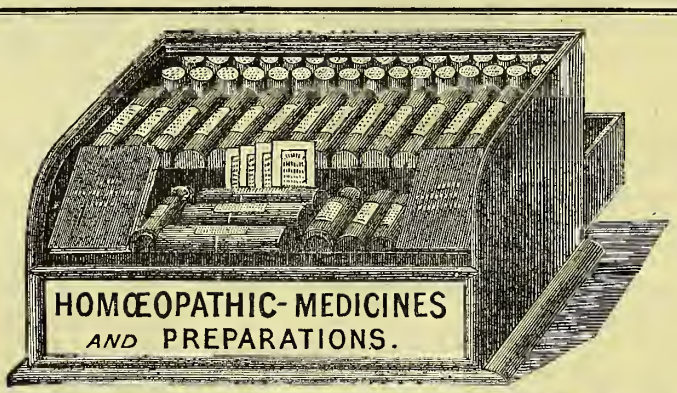
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